



U.S. Department
of Transportation
Federal Aviation
Administration

Helicopter Noise Definition Report

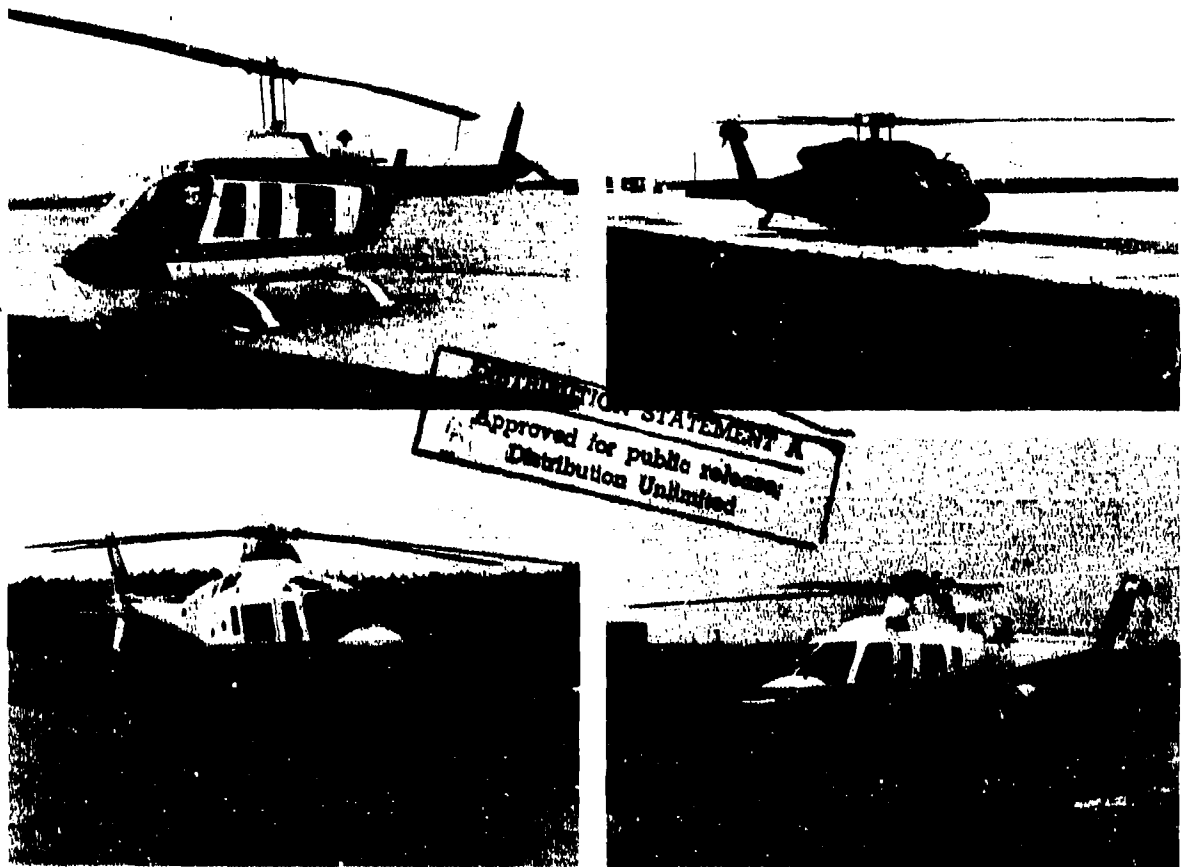
UH-60A, S-76, A-109, 206-L

Report No. FAA-EE-81-16

by
J. Steven Newman
Edward J. Rickley
David W. Ford

December 1981
Final Report

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Errata Sheet

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Helicopter Noise Definition Report
UH-60A, S-76, A-109, 206-L

Report No.
FAA-EE-81-16

Appendix B

Transpose column headings "CPA" and
"SRR" in all of the tables appearing
in Appendix B.

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15. Supplementary Notes *U.S. Department of Transportation, Transportation Systems Center, Kendall Square, Cambridge, Mass 02142		14. Sponsoring Agency Code FAA/AEE	
16. Abstract This document presents noise data for the Sikorsky UH-60A Blackhawk, the Sikorsky S-76 Spirit, the Agusta A-109 and the Bell 206-L. The acoustical data are accompanied by phototheodolite tracking data, cockpit instrument panel photo data, and meteorological data acquired from radiosonde balloons. Acoustical metrics include both noise certification metrics (EPNL, PNLT, PNL) as well as community/airport noise assessment metrics (SEL, dBA). Noise data have been acquired systematically to identify variations in level with variations in helicopter airspeed and altitude. Data contained in this report provide essential information for development of helicopter noise exposure contours as well as further evaluation of ICAO helicopter noise certification standards. Accordingly, this information will be of interest to helicopter manufacturers, airport planning consultants, acoustical engineers and airport managers. This report serves as a noise definition document establishing baseline acoustical characteristics of the test helicopters.			
17. Key Words Effective Perceived Noise Level (EPNL) Sound Exposure Level (SEL), Helicopter Noise, Helicopter, S-76, UH-60A, A-109, Bell 206-L, Heliport, Airport Noise Exposure, Helicopter Noise Contour		18. Distribution Statement This document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia 22161	
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PREFACE

This report presents a large volume of acoustical and tracking data for three new technology helicopters, (UH-60A, S-76, and A-109) and a fourth current technology helicopter, the Bell 206-L. Much of the information provided in this document has been released previously in piecemeal fashion in the form of ICAO working papers, preliminary reports, SAE-A21 Committee working papers and information transmittals directly to the participating manufacturers. This document has been prepared in order to chronicle formally the information gathered during the tests. While some brief analyses are provided, a comprehensive integrated data analysis has been left as the topic of a separate report.



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- U.S. Army Blackhawk DR CPM-BH/ABRADCOM and Ft. Eustis Training Command provided the UH-60A Blackhawk
- Agusta, Costruzioni Aeronautiche, Italy, provided the A-109
- Sikorsky Aircraft Division, provided the S-76 Spirit
- FAA, Hanger 6 Operations provided the Bell 206-L
- FAA Technical Center

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<u>Appendix</u>	<u>Description</u>
A	As Measured Noise Data
B	Corrected Noise Data
C	Flight Path Tracking Plots and Position Data
D	Helicopter Cockpit Data
E	Meteorological Data
	- Temperature, Relative Humidity and Wind Data

LIST OF SYMBOLS AND ABBREVIATIONS

dBAm	Maximum A-weighted sound pressure level, expressed in decibels
SEL	Sound Exposure Level expressed in decibels, the integration of the dBA time history normalized to 1 second. This appears as NEL (Noise Exposure Level) in Appendices A and B. Values of NEL have been computed using the "10 dB-down" time history.
SPL	Sound Pressure Level expressed in decibels
EPNL	Effective Perceived Noise Level
PNLT	Tone Corrected Perceived Noise Level
PNL	Perceived Noise Level
OASPL	Overall Sound Pressure Level
DUR(A)	"10 dB-Down" Duration of dBA time history
DUR(P)	"10 dB-Down" Duration of PNL time history
CPA	Closest point of approach. Subscripts typically refer to the reference or test flight paths (CPA_R and CPA_T)
dB	Decibels
Δ	Delta, or change in value
Delta ATM	Correction to PNLTM obtained by applying atmospheric absorption correction to the measured PNLTM spectra
Delta DIS	Correction to PNLTM obtained by applying spherical spreading losses to the measured PNLTM spectra
Delta 1	Correction term obtained by correcting SPL values for atmospheric absorption and flight track deviations per FAR 36, Amendment 9, Appendix A, Section A36.11, Paragraph d $\Delta 1 = \Delta ATM + \Delta DIS$
Delta 2	Correction term accounting for changes in event duration with deviations from the reference flight path
kts	Knots
NWS	National Weather Service
TSC	Department of Transportation, Transportation Systems Center
FAATC	Federal Aviation Administration Technical Center

EV	Event, test run number
ICAO	International Civil Aviation Organization
IRIG-B	Inter-Range Instrumentation Group B (established technical standard)
k(P)	The constant used to correct EPNL for distance duration effects in Delta 2(P)
k(A)	The constant used to correct SEL for distance duration effects in Delta 2(A)
RH	Relative humidity in percent
SL	Sideline
SL-N	Sideline-north microphone location
SL-S	Sideline-south microphone location
SPL	Sound pressure level
SR	Slant range distance, distance from the noise source to the receiver. Subscripts typically refer to the reference or test slant ranges (SR_R and SR_t or SR_1 and SR_2)
A	Approach operational mode
T/O	Takeoff operational mode
LFO	Level flyover operational mode
VASI	Visual approach slope indicator
V_H	Maximum speed in level flight with maximum continuous power
V_{NE}	Never-exceed speed
V_y	Speed for best rate of climb
V_T	Test velocity (airspeed)
V_R	Reference velocity (airspeed)

NOTE: Other terms used in the Appendices are defined within the text or on the page where they are used.

1.0 Introduction

1.1 Overview - An extensive helicopter noise measurement program was conducted by the FAA during the summer of 1980. Since that time several analyses, reports and working papers have been published, each based on the test results. This document has been prepared to make available a full set of acoustical, tracking and meteorological data from which the reader can pursue a variety of useful analyses. The paragraphs below present an overview of the test series, the participants and the objectives.

Test Sponsor, Program
Management and Data
Analysis

Federal Aviation Administration (FAA)
Office of Environment and Energy (AEE)

Test Facility

Federal Aviation Administration
Technical Center (FAATC) formerly the
National Aviation Facilities
Experimental Center (NAFEC), located
near Atlantic City, New Jersey

Flight Track Data
Processing and Data
Analysis

FAA-AEE Noise Abatement Division, Noise
Technology Branch, (AEE-120)

Noise Data Measurement,
Processing and Analysis

Transportation Systems Center (TSC)
Noise Measurement and Assessment Facility

Radiosonde Data
Acquisition and
Processing

National Weather Services (NWS)
Eastern Regional Office

Program Objectives

- a. In support of helicopter noise prediction efforts; acquire noise data relatively free of ground plane interference effects through use of 10m and surface mounted microphones.
- b. In support of noise data correction capabilities; investigate the variation in noise level with variations in helicopter speed over the range 0.7 (V_H or V_{NE}) to 0.9 (V_H or V_{NE})
- c. In support of noise data corrections capabilities; empirically determine the duration correction constant (K) for each test helicopter.
- d. In order to expand the FAA data base of helicopter noise information.

e. In support of noise data correction capabilities; investigate data variability associated with differences in propagation path, temperature and relative humidity.

f. In support of the Integrated Noise Model data base development; acquire position referenced, standard day normalized helicopter noise data.

Test Helicopters

a. Sikorsky, UH-60A, "Blackhawk", approximately 20,250 lbs gross weight, provided through the courtesy of the U.S. Army.

b. Sikorsky, S-76, "Spirit," 10,000 lbs gross weight, provided through the courtesy of Sikorsky.

c. Agusta, A-109, 5,000 lbs gross weight, provided through the courtesy of Agusta.

d. Bell 206-L, "Long Ranger", 4,000 lbs gross weight, FAA aircraft.

1.2 Measurement Locations - An array of nine microphones was used during the test. The microphones were distributed among six different measurement sites and at several heights above surrounding ground level, as follows:

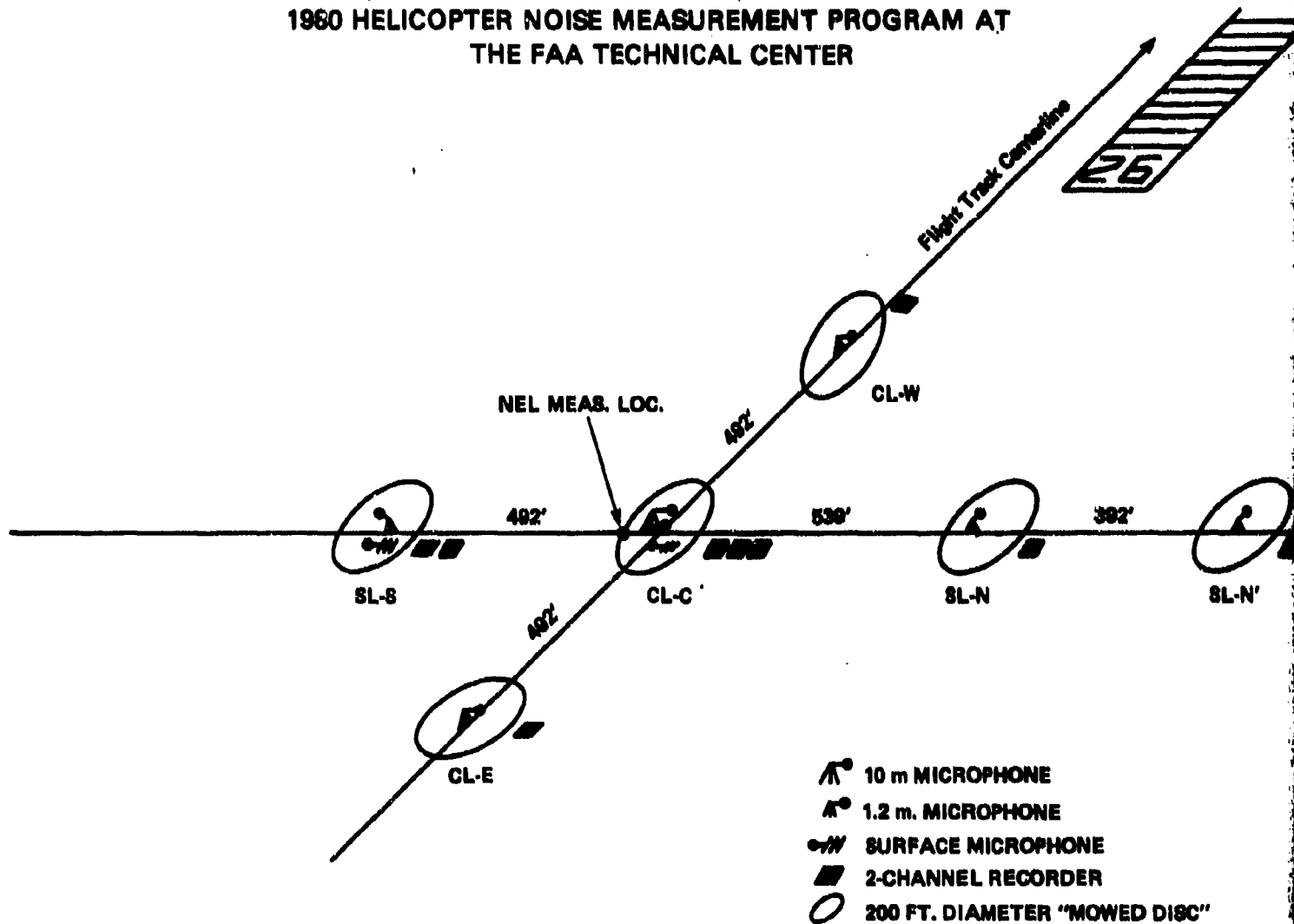
- Mic. 1, Centerline-Center, 4 ft. (CL-C)
- Mic. 2, Centerline 492 ft. West of Mic. 1, 4 ft. (CL-W)
- Mic. 3, Centerline 492 ft. East of Mic. 1, 4 ft. (CL-E)
- Mic. 4, Sideline 539 ft. North of Mic. 1, 4 ft. (SL-W)
- Mic. 5, Sideline 492 ft. South of Mic. 1, 4 ft. (SL-S)
- Mic. 6, Sideline 931 ft. North of Mic. 1, 4 ft. (SL-N)
- Mic. 1G, Centerline Center (Ground) (CL-C)
- Mic. 1H, Centerline Center, 33 ft. (CL-C)
- Mic. 5G, Sideline 150m South of Mic. 1, (Ground) (SL-S)

A clear circle, approximately 200 feet (61 meters) in diameter, was mowed around each microphone location. Low scrub bush and grass bordered each cleared circle. The microphone locations are shown in Figure 1.2.1.

Figure 1.2.2 is a photograph showing the microphone array as seen from an approaching test aircraft.

FIGURE 1.2.1

**MICROPHONE AND RECORDING SYSTEM DEPLOYMENT;
JUNE
1960 HELICOPTER NOISE MEASUREMENT PROGRAM AT
THE FAA TECHNICAL CENTER**



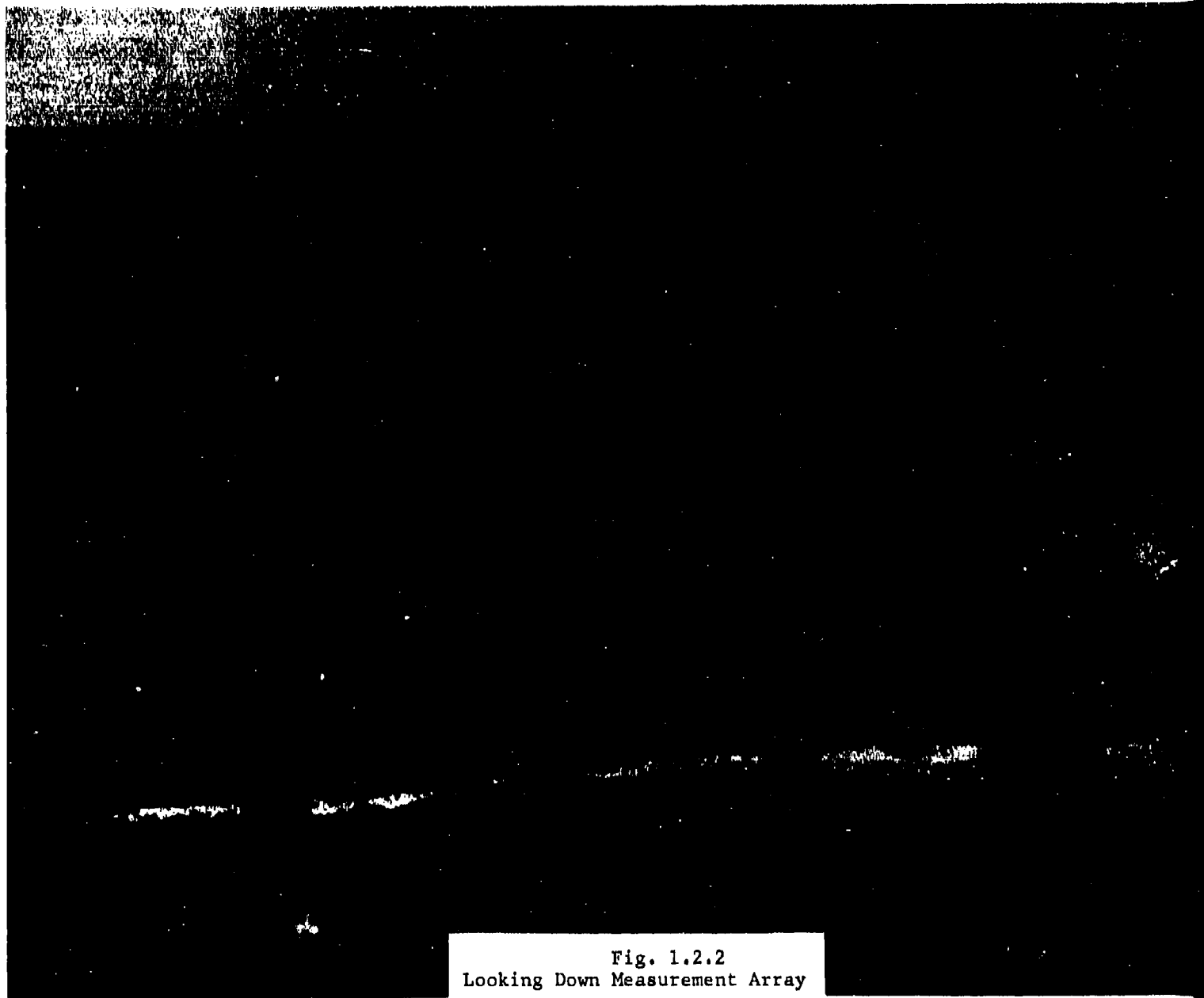


Fig. 1.2.2
Looking Down Measurement Array

1.3 Orientation of Flight Paths/Flight Path Assistance - The reference ground track was parallel to and 75 feet (23 meters) to the left of the Runway 26 centerline. Level flyovers were conducted in both the 260° and the 080° directions. Approach operations were conducted from the east to the west on a heading of 260°. On the first day of testing (June 22) the takeoff operations were conducted from the east to the west. In order to increase the obstruction clear distance for level flight prior to takeoff rotation, all subsequent takeoffs were conducted from the west to the east.

Visual cues (squares of plywood painted bright yellow) were provided to define the rotation point for takeoffs and the break off point for both takeoffs and approaches. A standard red/white visual approach slope indicator (VASI) set at a 6° glide slope angle was used for the approach portion of the test. In addition, the rotorcraft flight profile and track were monitored in real-time by FAATC range control personnel who transmitted flight track correction information to the pilot, as required. In addition, the VASI ground crew monitored the approach events and advised pilots of any deviation greater than ± 0.5 degrees from an approach angle of 6 degrees.

Three portable battery-powered (non-strobe) spotlights, similar to the sealed beam type used in emergency lighting systems, were also deployed at the visual cue and VASI sites to assist pilots in maintaining the array centerline during the early morning portion of the test.

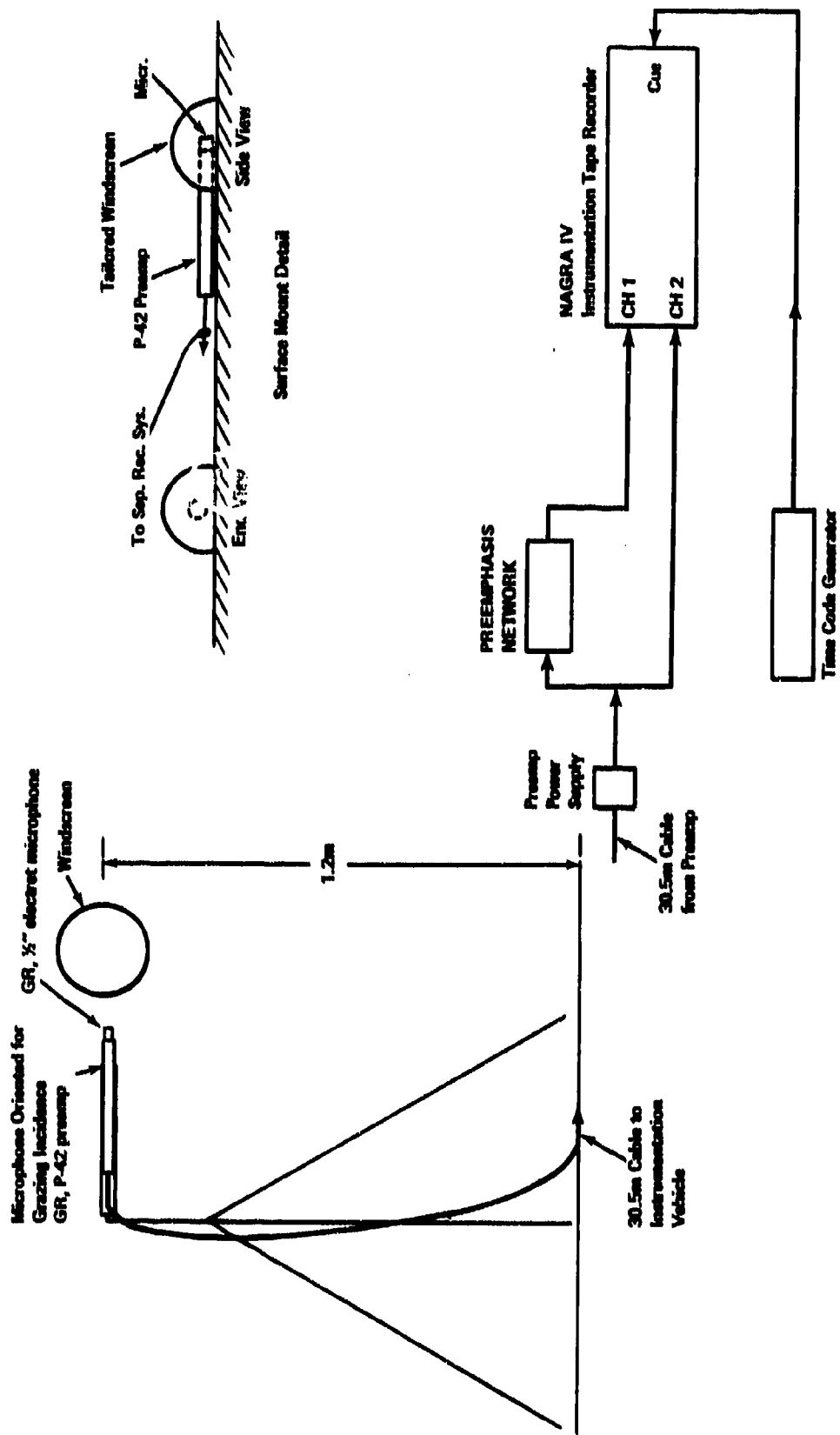
1.4 Acoustical Measurement Instrumentation - TSC personnel deployed Nagra two-channel direct-mode tape recorders operating with preemphasis on one channel. The preemphasis network rolled off those frequencies below 10,000 Hz at 20 dB per decade. The filtered signal was then amplified to achieve signal levels within the top 20 dB of the linear recording range. The use of preemphasis is necessary in order to boost the high frequency portion of the acoustical signal (such as a helicopter spectrum) characterized by large level differences (30 to 60 dB) between the high and low frequencies. Recording gains were adjusted so that the best possible signal-to-noise ratio would be achieved while allowing enough "head room" to comply with applicable distortion avoidance requirements.

IRIG-B time code synchronized with the tracking time base was recorded on the cue channel of each system. The typical measurement system consisted of a General Radio $\frac{1}{4}$ inch electret microphone oriented for grazing incidence driving a General Radio P-42 preamp and mounted at a height of four feet (1.2 meters). A 100-foot (30.5 meters) cable was used between the tripod and the instrumentation vehicle located at the perimeter of the test circle. A schematic of the acoustical instrumentation is shown in Figure 1.4.1.

Figure 1.4.1 also shows the cutaway windscreen mounting for the ground microphone. This configuration places the lower edge of the microphone diaphragm approximately one-half inch from the plywood (4 ft by 4 ft) surface. The ground microphone was located off center in order to avoid natural mode resonant vibration of the plywood square.

FIGURE 1.4.1

ACOUSTICAL MEASUREMENT INSTRUMENTATION



1.5 Tracking - The FAATC phototheodolite tracking system was used for aircraft position determination. The accuracy of the system is approximately +2 feet for the distance encountered between the targets and the tracking towers. The phototheodolite operators were instructed to track the main rotor hub. Three dimensional coordinates were provided for each 0.1 second interval. A photograph of a typical phototheodolite tracking station is shown in Figure 1.5.1.

The final format of tracking data consists of X, Y, Z and time expressed in units of feet and seconds referenced to the tracking origin and provided in BCD format on 1/2-inch, 9-track magnetic tape recorded at a density of 800 BPI.

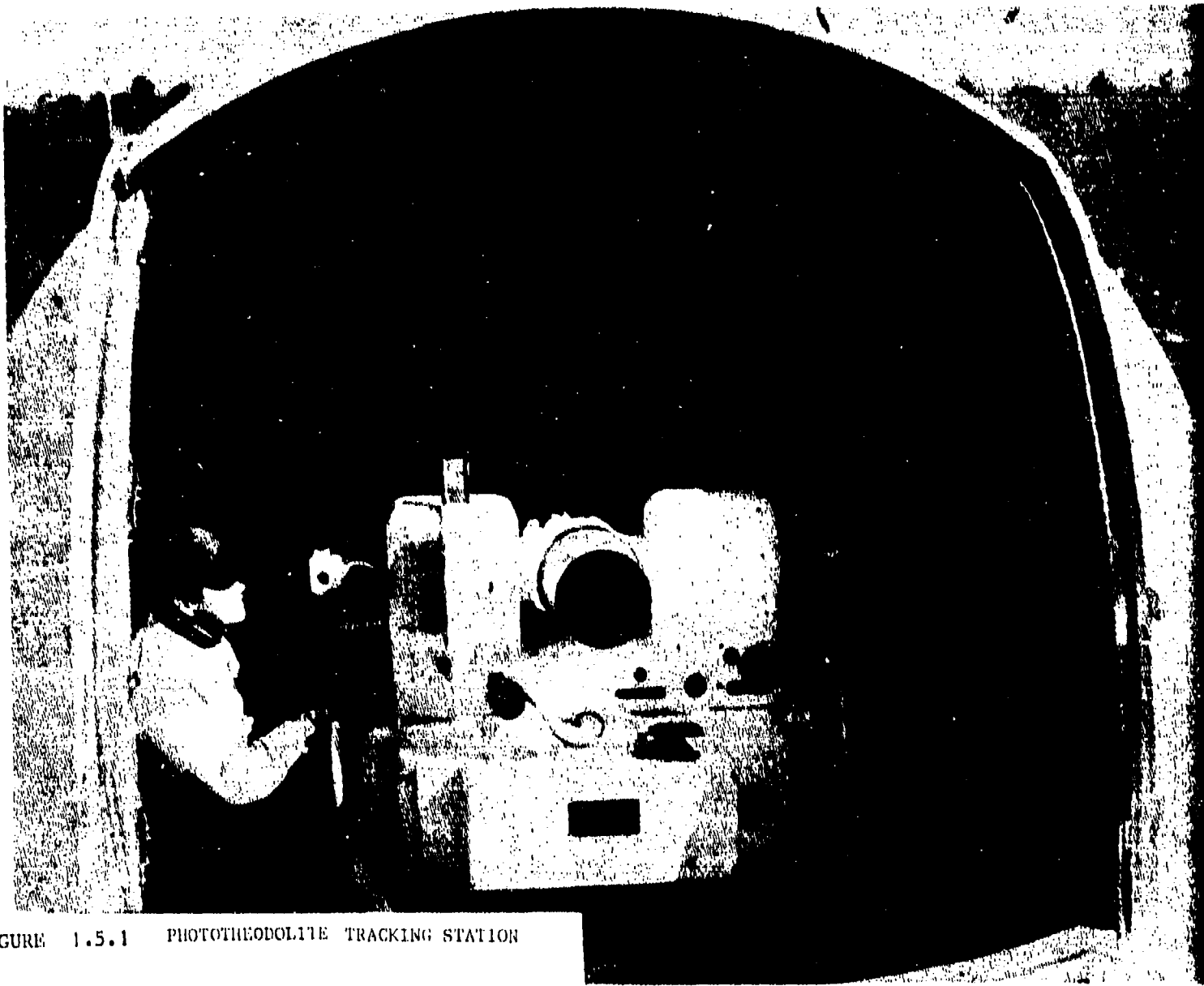


FIGURE 1.5.1 PHOTOTHEODOLITE TRACKING STATION

1.6 Meteorological Data - The National Weather Service (NWS) supported the test program by providing meteorological radiosonde data, consisting of dew point depression, temperature, and wind vector information from ground level through the highest test altitude. Using a standard conversion program the relative humidity has been computed for each value of temperature and dew point depression. An extensive summary of meteorological data is contained in Appendix E.

For the purpose of data corrections in Appendix B (atmospheric absorption corrections), the radiosonde data have been used to establish 10-meter correction values for temperature and relative humidity.

The National Weather Service specifications for the radiosondes used in the test are as follows:

Temperature: +1 degree Celsius
Relative Humidity: +5 percent
Windspeed: +1 knot

These values encompass the full range of baseline calibration errors +3 standard deviations. However, it is noted that bias errors in the base station or non-linearities in instrument response may introduce additional errors. The radiosonde hygistor and thermistor transducers also are subject to a certain response lag or time constant. The influence of these characteristics may also introduce some errors.

The radiosonde system is a good means to assess accurately temperature and wind vector information; however, it is recognized that the relative humidity is less reliable

1.7 Cockpit Data Acquisition - A 35mm color slide of the instrument panel was taken at the midpoint of each data run, approximately overhead the center centerline microphone position. A time-synchronized, sweep-second-hand clock was mounted on a convenient location on the instrument panel. Time correlated altitude, airspeed, rotor RPM, torque, vertical speed and heading were taken from each slide. These data have been provided to supplement phototheodolite tracking data and verify operational procedures. Typical cockpit instrument photographs are shown in figures 1.7.1 through 1.7.4.

1.8 Ambient Noise - Careful steps were taken to ensure as low an ambient noise condition as possible during the tests. Flight-line operations were curtailed during the tests, and all controlled air traffic operations were kept away from the airfield through cooperation of the Air Traffic Control Tower. Further a Notice to Airmen (NOTAM) was issued to effectively close the airport during the tests.

In addition, the local Air National Guard Fighter Interceptor Squadron curtailed its F-106 run-up operations during the test period.



Fig. 1.7.1
Sikorsky UH-60A Blackhawk Approach Event
B-16 on 6/22

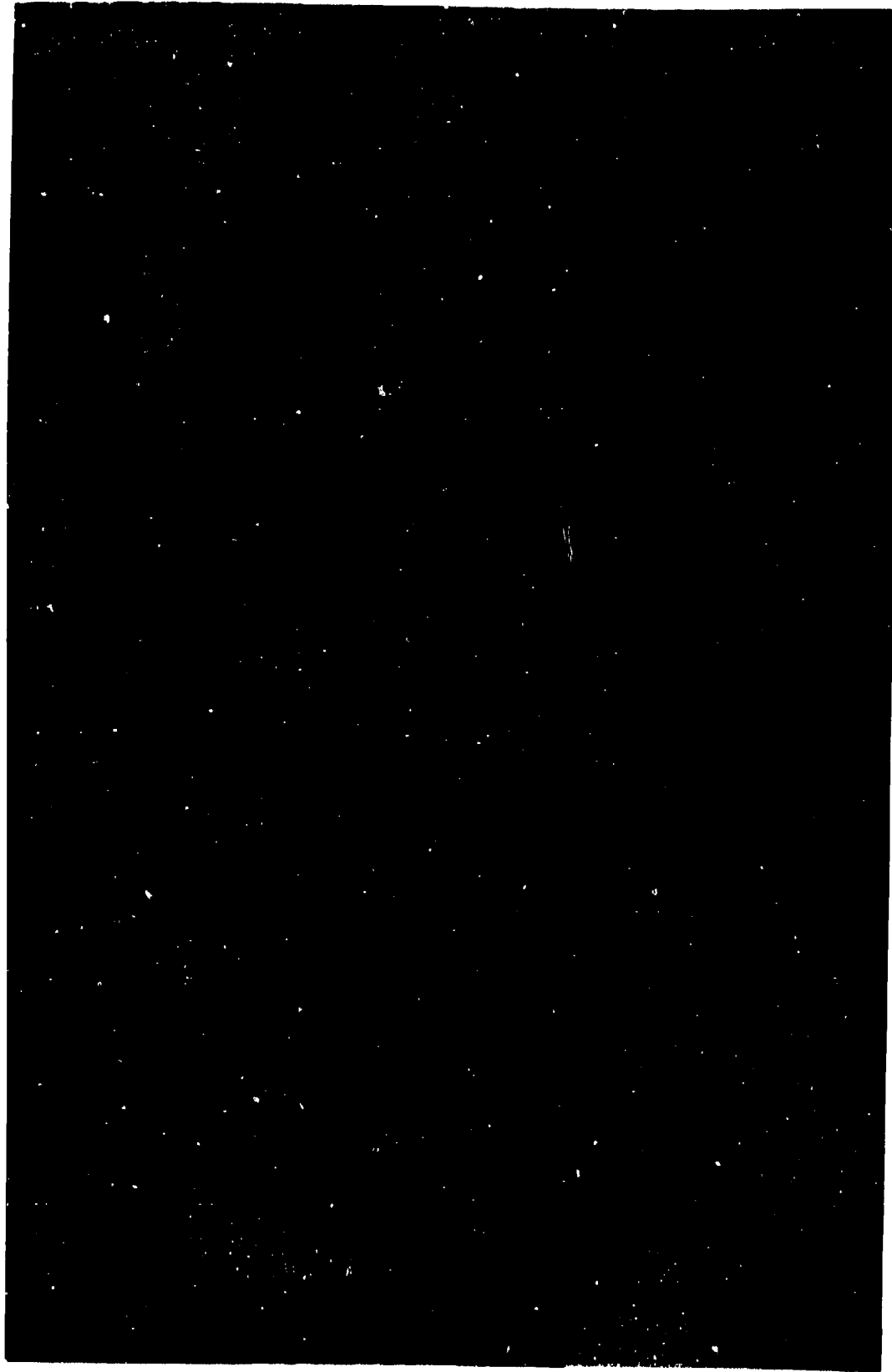


Fig. 1.7.2
Sikorsky S-76, Spirit Approach Event B-40
on 6/25



Fig. 1.7.3
Agusta A-109 Approach Event B-28 on 6/24

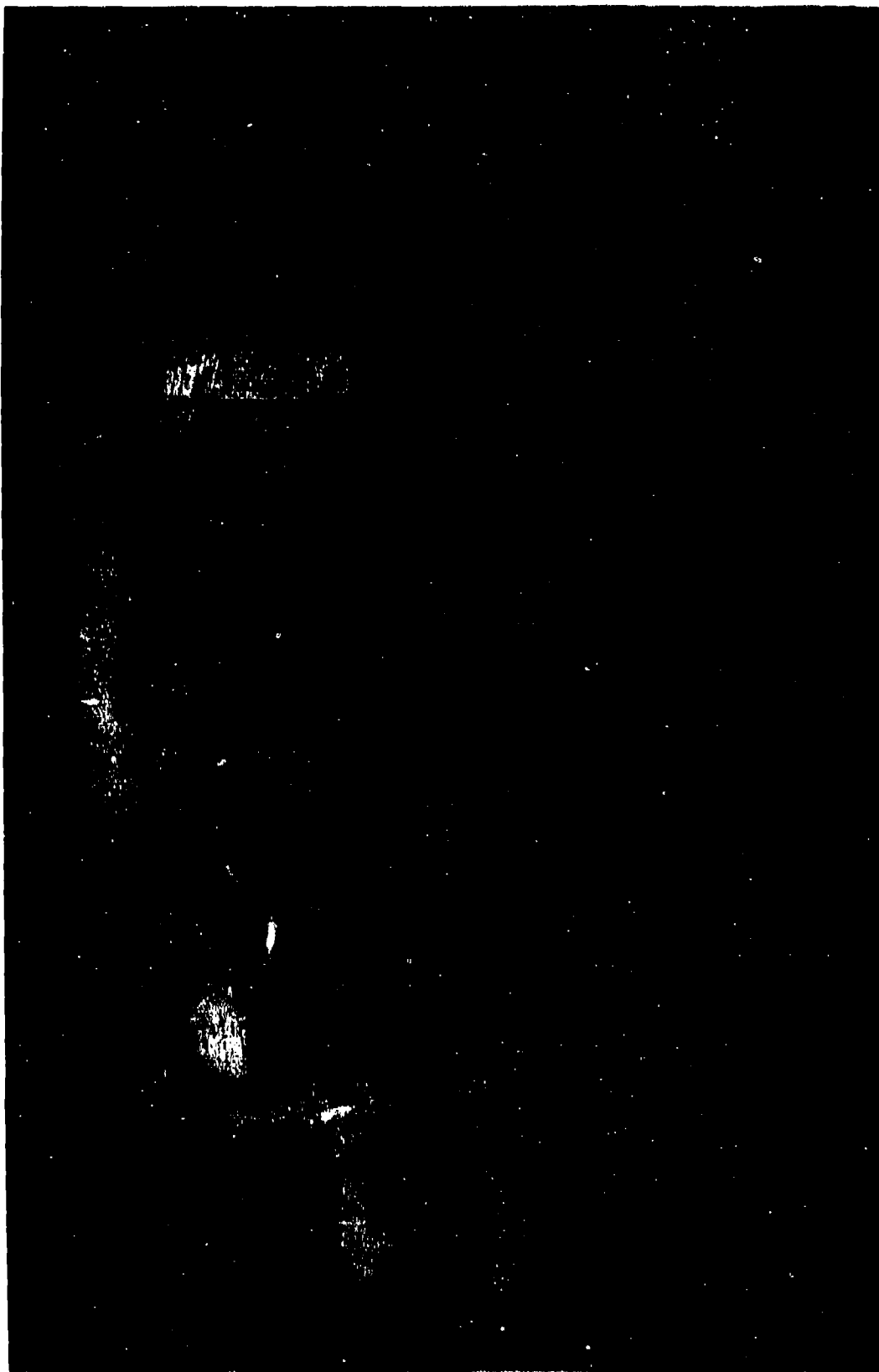


Fig. 1.7.4
Bell 206-L 300 Ft. LFO, Event D1 on 6/26

2.0 Helicopter Operation and Description

2.1 Helicopter Operational Procedures - Prior to the test all participants were briefed on the various flight procedures to be used during the test. Strong emphasis was placed on careful adherence to prescribed reference test procedures, especially the anticipation of the takeoff rotation point and execution of accurate 6 degree approaches.

Participants were also encouraged to practice each test series, if possible.

An FAA observer in the cockpit of each helicopter assisted the pilot with test procedures

a. Test Series Identification - A handy cross reference useful in identifying each particular event with a given test series is the Appendix D "Helicopter Cockpit Data Tables." The slide run number on each photo is preceded by a letter prefix which identifies the test series and associated reference or target conditions.

Test Series A consisted of 1000-foot level flyovers with rotor speed at the maximum normal operating RPM airspeed stabilized at either 90 percent V_H (maximum speed in level flight with maximum continuous power) or 90 percent V_{NE} (never exceed speed), whichever is less.

Test Series B consisted of alternating takeoffs and landings in accordance with the conditions specified in figures 2.1.2 and 2.2.2.

Test Series C consisted of level flyovers at an altitude of 500 feet above ground level. In this test series the airspeed was varied to assess speed affects on noise level. Figure 2.1.3 provides a detailed procedure for the 0.9 V_H or 0.9 V_{NE} level flyovers.

Test Series D consisted of level flyovers at different altitudes at a constant airspeed of 0.9 V_H or 0.9 V_{NE} whichever is less. Figure 2.1.3 again specifies the proper operating conditions (except for altitude).

Test Series E repeated Series A to provide a means for assessing repeatability and changes in absorption characteristics between the start and finish of a test.

Test Series H consisted of hover events at a constant heading.

b. Special Cases - Notable deviations from the reference conditions specified above include all test scenarios for the S-76 on 6/23 in which the main rotor RPM was 100 percent rather than 107 percent which is the maximum normal operating RPM (top of the green).

The other significant variation was the UH-60A takeoff and approach test on June 26 in which alternative torque and speed parameters were used.

FIGURE 2.1.1

TAKE-OFF PROCEDURE

The take-off flight path shall be established as follows:

- the helicopter shall be established in level flight at the best rate of climb speed, V_y , ± 3 knots, of the maximum speed of the curve contiguous to the ordinate of the limiting height-speed envelope ± 3 knots (± 3 knots), whichever is greater, and, at a height of 20 m (66 ft) above the ground until a point 500 m (1,640 ft) before the flight path reference point is reached;
- upon reaching the point specified in a) above, the power shall be increased to maximum take-off power and a steady climb initiated and maintained over the noise measurement time period;
- airspeed established in a) above shall be maintained throughout the take-off reference procedure;
- the steady climb shall be made with the rotor speed stabilized at the maximum rpm for power-on operations
- a constant take-off configuration selected by the applicant shall be maintained throughout the take-off reference procedure except that the landing gear may be retracted; and
- the weight of the helicopter shall be the maximum take-off weight.

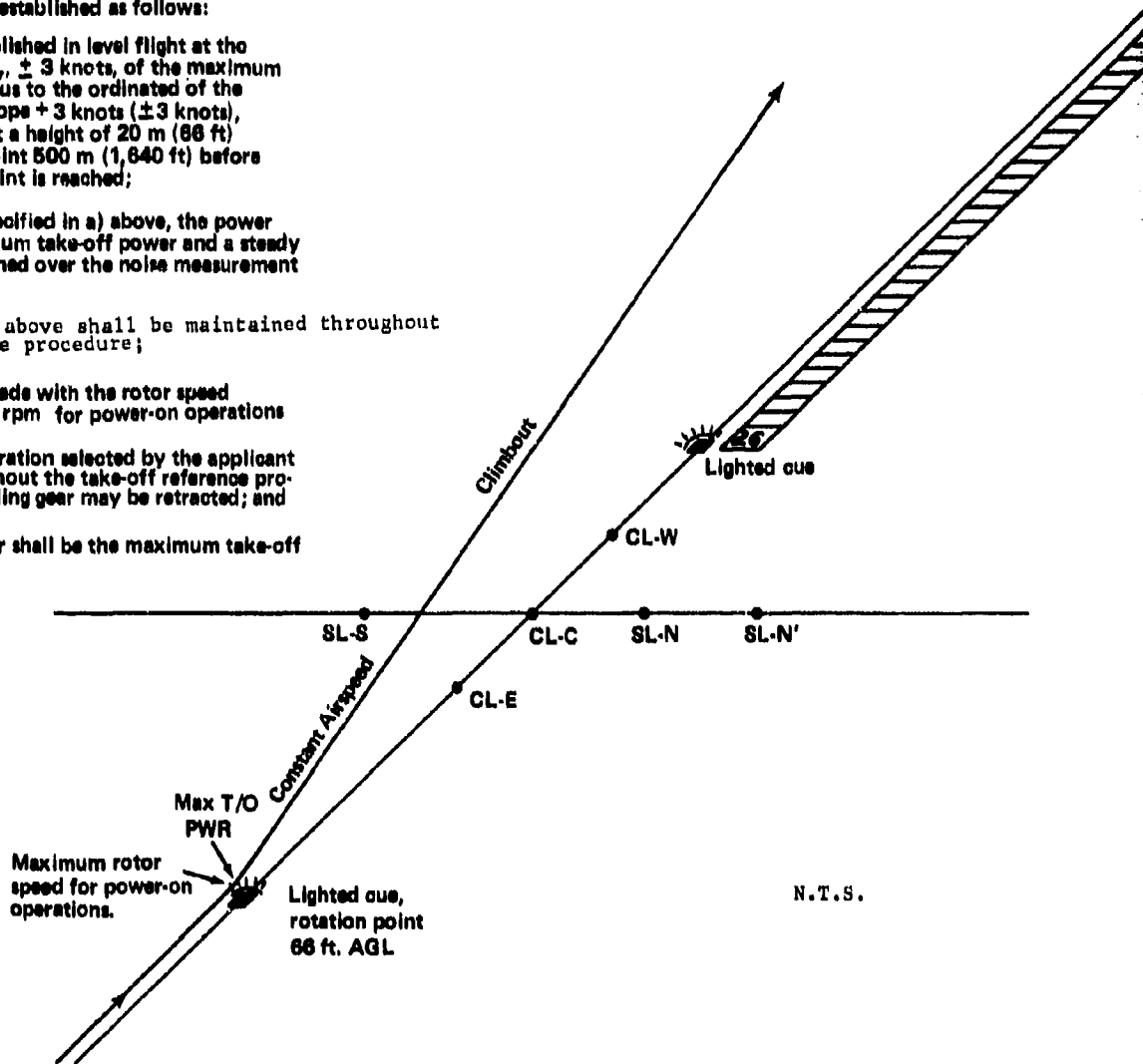


FIGURE 2.1.2

APPROACH PROCEDURE

The approach procedure shall be established as follows:

- the helicopter shall be stabilized and following a 6.0° approach path;
- the approach shall be made at a stabilized airspeed equal to the best rate of climb speed $V_{Y, \pm 3}$ knots, or the maximum speed of the curve contiguous to the ordinate of the limiting height-speed envelope $+ 3$ knots (± 3 knots), whichever is the greater, with power stabilized during the approach and over the flight path reference point, and continued to 50 feet above ground level
- the approach shall be made with the rotor speed stabilized at the maximum rpm for power-on operations.
- the constant approach configuration used in airworthiness certification tests, with the landing gear extended, shall be maintained throughout the approach reference procedure; and
- the weight of the helicopter shall be the maximum landing weight

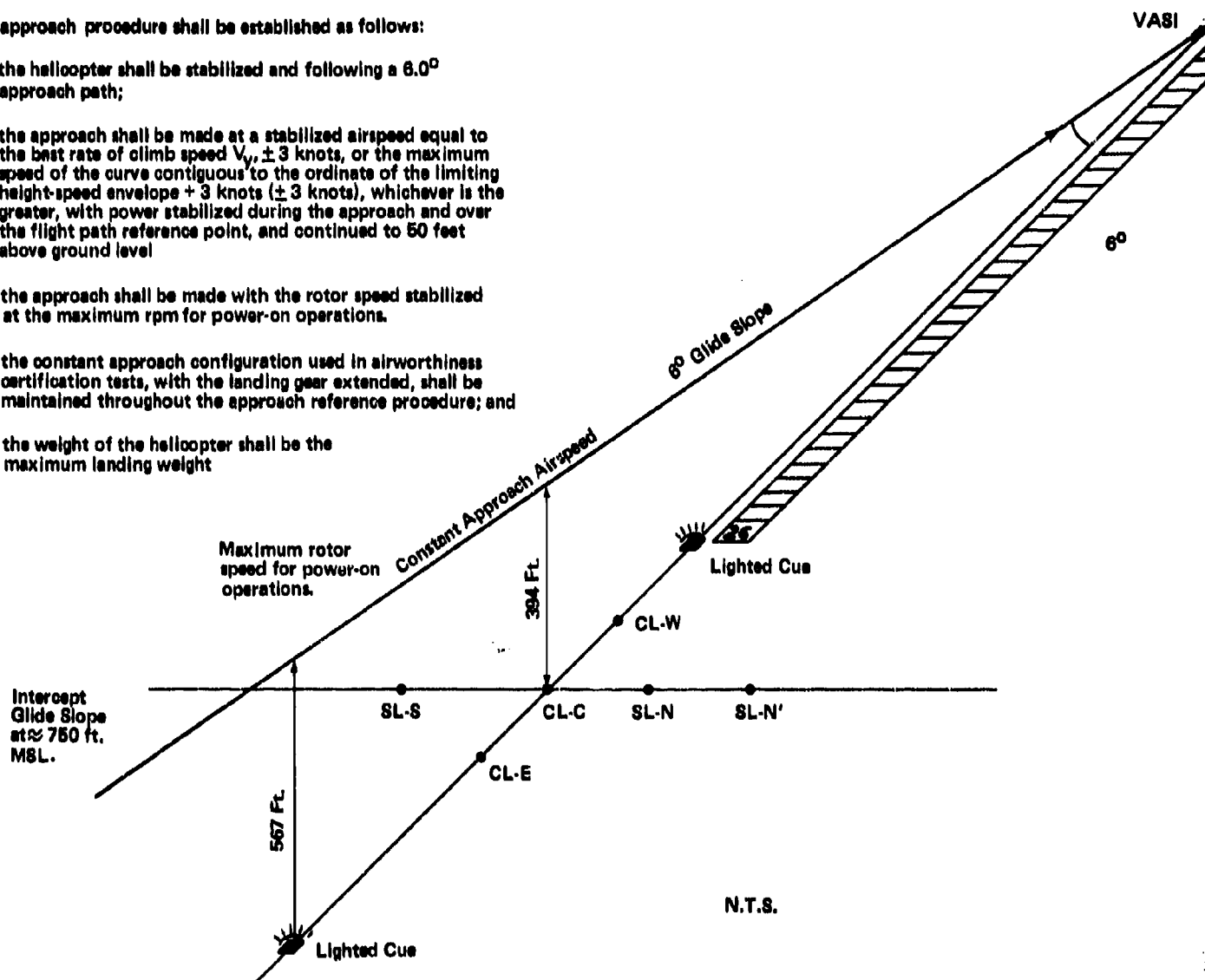


FIGURE 2.1.3

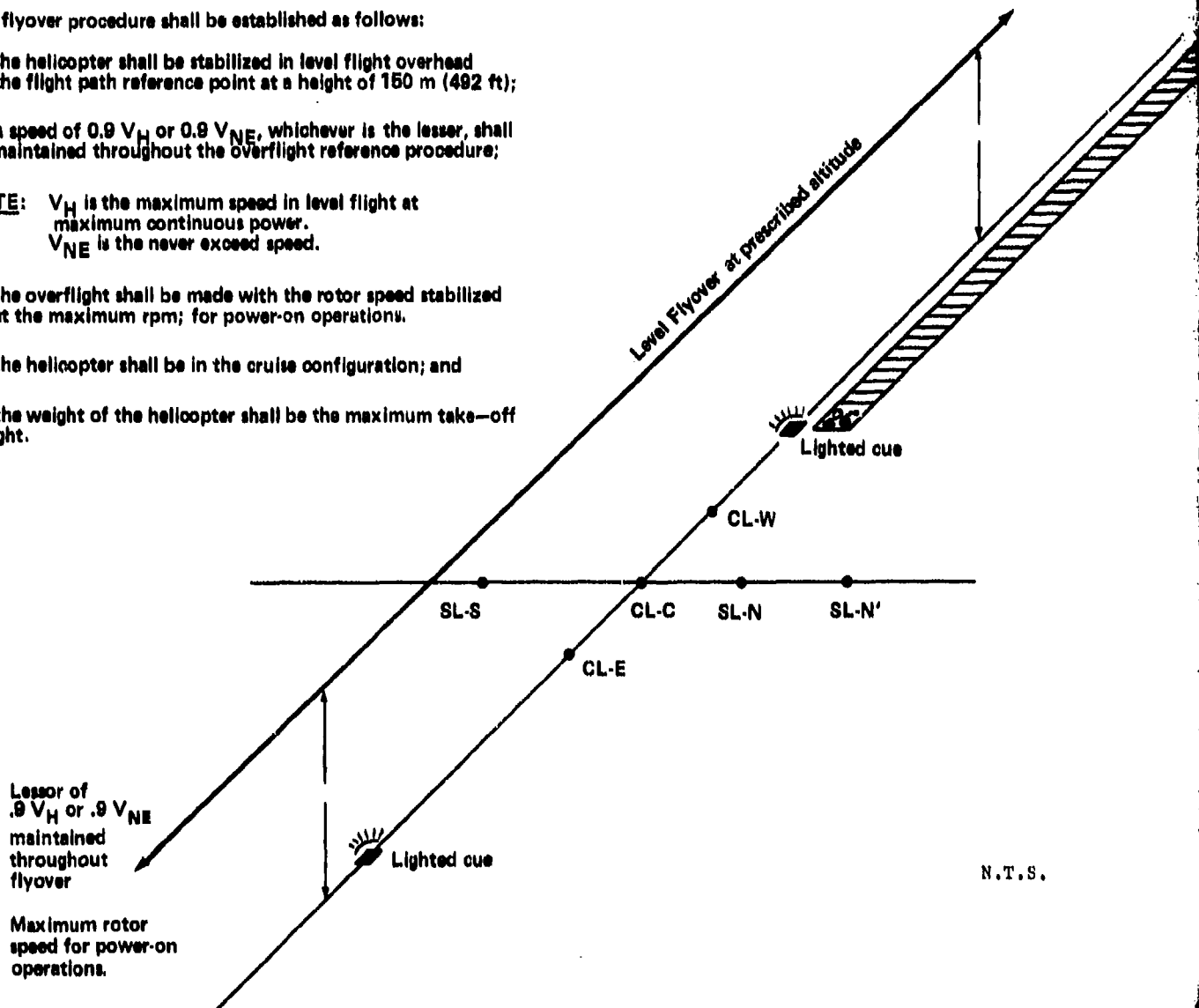
LEVEL FLYOVER PROCEDURE

The flyover procedure shall be established as follows:

- a) the helicopter shall be stabilized in level flight overhead the flight path reference point at a height of 150 m (492 ft);
- b) a speed of $0.9 V_H$ or $0.9 V_{NE}$, whichever is the lesser, shall be maintained throughout the overflight reference procedure;

NOTE: V_H is the maximum speed in level flight at maximum continuous power.
 V_{NE} is the never exceed speed.

- c) the overflight shall be made with the rotor speed stabilized at the maximum rpm; for power-on operations.
- d) the helicopter shall be in the cruise configuration; and
- e) the weight of the helicopter shall be the maximum take-off weight.



N.T.S.

2.2 Reference Flight Paths - Appendix B of this report contains acoustical data corrected for actual flight path divergence from selected reference flight paths (as well as corrections for non-standard atmospheric absorption and duration effects).

In the case of level flyover events, the reference altitude is the specified target altitude.

For approaches, the reference path is a 6 degree glide slope along the microphone array centerline with a ground plane intercept at a point 3,754 feet (1144 met) from the centerline-center microphone (CL-C). This path yields a CPA of 394 ft at the CL-C location.

The takeoff reference flight paths have been determined from information provided by the helicopter manufacturers or from pilot operating handbooks. It is noted that different representatives of same helicopter manufacturer may provide slightly different reference parameters for V_y and best rate of climb for a given weight, temperature and pressure. This observation is made to point out that although the climb angles given in Table 2.2.1 are certainly representative, it is reasonable to examine or entertain alternative climbout profiles associated with other performance assumptions.

The necessary empirical data and test information has been provided to allow the reader to adjust Appendix A data to other "reference" profiles. It is noted that all of the corrections applied in Appendix B relate to acoustical propagation and assume that the "reference position" could be realized without changing the helicopter acoustical radiation characteristics.

Table 2.2.1

Takeoff Reference Climbout Paths for 77°F, Sea Level Standard Day Pressure

<u>Helicopter</u>	<u>Test Date</u>	<u>Rate of Climb (Feet Per Min)</u>	<u>Airspeed (Knots)</u>	<u>Climb Angle (Degrees)</u>	<u>Gross Weight (Lbs.)</u>	<u>Main Rotor Speed</u>
UH60A	June 22 (N.2)	1950	80	13.9	20,250	258 RPM, 100%
UH60A	June 26 (N.1)	1950	80	13.9	20,250	258 RPM, 100%
A109	June 24	1450	60	13.7	5,730	385 RPM, 100%
S76(100%)	June 23	1350	74	10.3	10,000	293 RPM, 100%
S76 (107%)	June 25	1240	74	9.5	10,000	314 RPM, Top of Green, 107%

NOTES:

N.1 Takeoff torque reduced to Hover+10% from 100%, thus rate of climb and climb angle reference values are not strictly applicable. The Appendix A, "As Measured" data are of most interest in this case especially in comparison with the 100% torque takeoffs.

N.2 The pilots selected Vy=69 knots for the test day temperature (54°F) rather than 80 knots. The rate of climb as shown in Appendix D was on the order of 2200 fpm.

2.3 Helicopter Characteristics - Pertinent noise related helicopter characteristics are tabulated in Table 2.3.1. This format has been used in previous ICAO Working Group B (helicopter) noise data reports. The engine, main rotor, and tail rotor, as well as general performance characteristics, have been noted, recognizing their influence on the generation of external noise. Photographs of each test helicopter are shown in Figures 2.3.1 through 2.3.4.

Table 2.3.1
HELICOPTER PHYSICAL/OPERATIONAL PARAMETERS

MANUFACTURER	SIKORSKY	BELL	AGUSTA	SIKORSKY
COUNTRY	U.S.A.	U.S.A.	ITALY	U.S.A.
MODEL	S-76	206L	A-109	Sikorsky S-70, Military Designation UH60A Blackhawk
NUMBER OF ENGINES	2 Allison 250-C30	1 Allison 250-C28B	2 Allison 250-C20B	2 GE-T700-GE-700
MAX TAKEOFF WEIGHT	4545.9 kg 10,000 lbs	1814 kg 4000 lbs	2599.0 kg 5730 lbs	9185.2 kg 20,250 lbs
SHAFT HORSEPOWER (SHP)	-RATED 650 shp ea -T-O, .610 shp ea -MAX CONT, 600 shp ea -NORM CRUISE, 450 shp ea	- MAX CONT. = 489 shp	-T/O, 420 shp ea -MAX CONT = 385 shp ea	-RATED 1343 shp ea. -MAX CONT = 1327 shp ea.
SPECIFIC FUEL CONSUMPTION MAX POWER lb/hp/hr	0.63	0.63	0.65	
"MAX CONTINUOUS SPEED"	LEVEL FLIGHT w/MAX CONT POWER 146 kts.	MAX LEVEL SPEED AT S/L 130 kts.	MAX SPEED IN LEVEL FLIGHT w/ MAX CONT PWR 142 kts	MAX SPEED IN LEVEL FLIGHT w/ MAX CONT PWR 165 kts.
NEVER EXCEED SPEED (Knots)	155 kts.	130 kts	158 kts	195 kts.
MAX CRUISE SPEED (Knots)	145 kts	AT 5000 ft. MSL 116 kts	AT MAX CONT PWR 144 kts *	AT 4000 FT MSL 145 kts
ROTOR SPEED	293 RPM at 100% 314 RPM at 107%	394 RPM, 100%	385 RPM, 100%	285 RPM, 100%

SIKORSKY S-76

BELL 206-L AGUSTA A-109

SIKORSKY UH-60A

MAIN AND TAIL ROTORS	MAIN	TAIL	MAIN	TAIL	MAIN	TAIL	MAIN	TAIL
DIAMETER (ft, in)	44' 0"	8' 0"	37' 0"	5' 5"	35' 1"	6' 8"	53' 8"	11' 0"
NUMBER OF BLADES	4	4	2	2	4	2	4	4
CHORD	15.6"	6.5"	13.0"	5.2"	13.2"	7.9"	20.7"	
BLADE LOAD (lb/ft ²)	88	86.3	97.3		72.3	85.0		
PERIPHERAL VELOCITY (fps)	675	674	763		728	728	696	657
*NOTE: DIFFERENT SOURCES USED SLIGHTLY DIFFERENT TERMINOLOGY AND PROVIDED SLIGHTLY DIFFERENT INFORMATION. REFERENCES: PERSONAL COMMUNICATION FROM HELICOPTER MANUFACTURERS AND 1979-1980, JAMES. ALL THE WORLDS AIRCRAFT.								



Fig. 2.3.1
Sikorsky UH-60A, "Blackhawk"

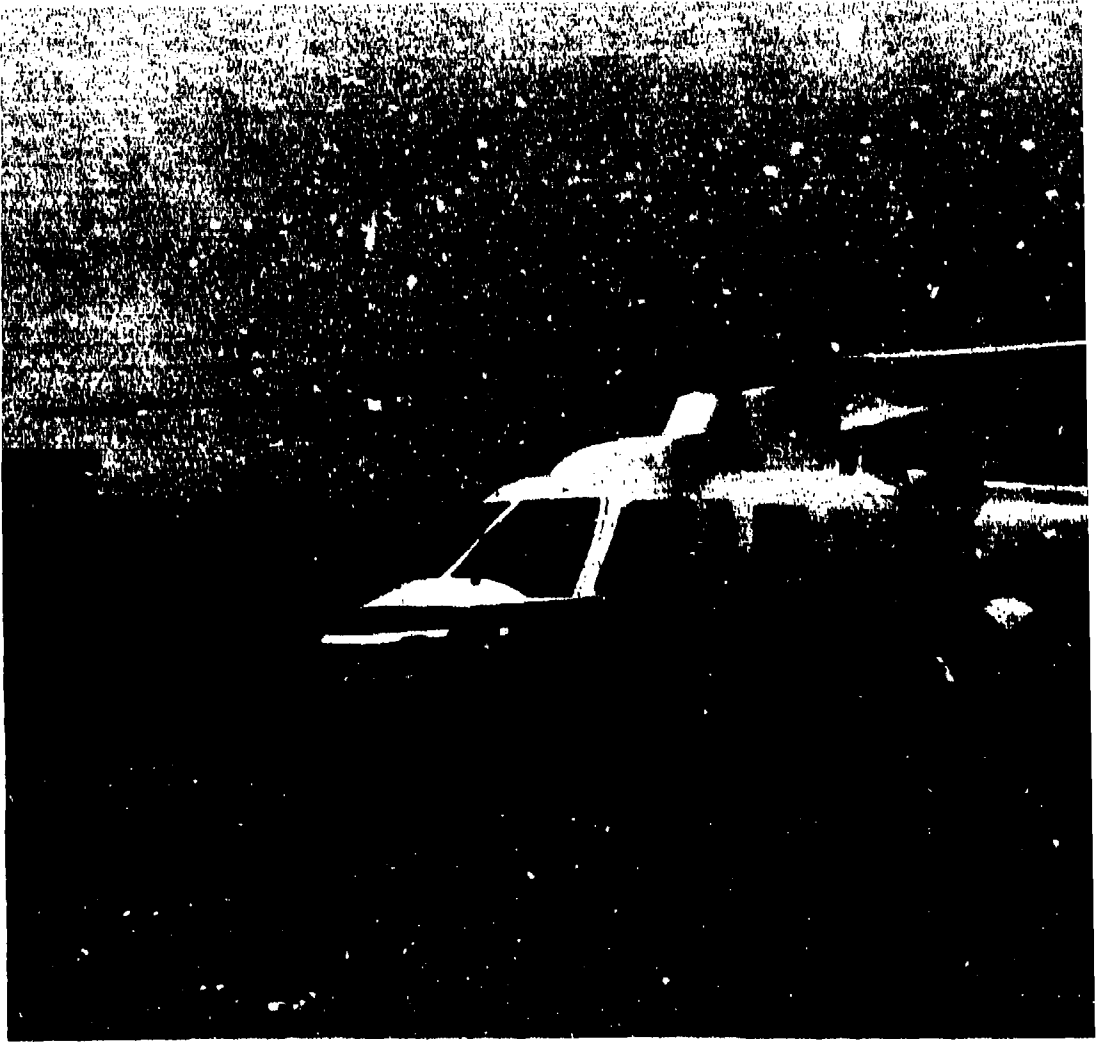


Fig. 2.3.2
Sikorsky S-76, "Spirit"



Fig. 2.3.3
Agusta A-109



Fig. 2.3.4
Bell, 206-L

3.0 Noise Data Reduction - The analog magnetic tape recordings analyzed at the TSC facility in Cambridge, Massachusetts, were fed into magnetic disc storage after filtering and digitizing using the GenRad 1921 one-third octave real-time analyzer. Recording system frequency response adjustments were applied, assuring overall linearity of the recording reduction system. The stored 24, one-third octave sound pressure levels (SPLs) for each of the one-half second integration periods making up each event comprise the base of "raw data." Data reduction followed the basic procedures defined in Federal Aviation Regulation (FAR) Part 36. The following sections describe the steps involved in arriving at final values of EPNL.

3.1 Spectral Shaping - The raw spectral data were adjusted by sloping the spectrum shape at -2 dB per one-third octave for those one-third octaves (above 1.25 kHz) where the signal-to-noise ratio was less than 5 dB. This procedure was applied in cases involving no more than 9 "missing" one-third octaves. The shaping of the spectrum over this range (9 bands) was conducted in order to minimize EPNL data loss. This spectral shaping methodology deviates from the FAR 36 procedures in that the extrapolation includes four more missing bands than normally allowed. However, in this specific case, it is felt that use of the technique is justified as the high frequency spectral shape for most helicopter is observed to fall off regularly at 2 dB per one-third octave.

3.2 Bandsharing of Tones - All calculations of PNLTM included testing for the presence of band sharing and adjustment in accordance with the procedures defined in FAR 36, Appendix B, Section B 36.2.3.3.

3.3. Tone Corrections - Tone corrections are computed using the full spectra containing 24, one-third octave bands. Computations begin with band 1 rather than band 3 (as specified for CTOL aircraft in FAR 36 in recognition of the strong low frequency tonal content of helicopter spectra.

3.4 Low Frequency Influence on Tone Corrections - In order to portray the prominence of low frequency influence on tone corrections values, the EPNL has also been computed with the deletion of all tone corrections below 800 Hz. The difference between the full spectrum procedure and the abbreviated procedure is shown as Delta EPNL in Appendix A.

3.5 Corrected Data: Position and Atmospheric Absorption Corrections - "As Measured" data were used as the basis from which to compute the "Corrected" data. The process of correcting data for position and atmospheric absorption included:

- Adjusting the measured 24 one-third octave SPLs of the PNLTM spectra to the standard acoustical data conditions utilizing 10 meter meteorological data interpolated from NWS radiosonde data.
- Adjusting for the change in atmospheric absorption associated with the difference in slant range between the actual and reference position of the helicopter at the time of PNLTM.
- Adjusting for spherical spreading attenuation associated with the difference in slant range between the actual and reference position of the helicopter at the time of PNLTM.

3.6 Distance-Duration and Speed Corrections - The traditional methodology for correcting single event cumulative metrics (EPNL or SEL) for non-reference duration (associated with non-reference altitude) is to use the expression $10 \log (d_1/d_2)$, which follows from the equation $SEL=10 \log(DUR)+C$. This latter relationship can be derived from consideration of source directivity as an idealized monopole, dipole or quadrapole radiator of acoustical energy. In each case the equation is supplemented by the addition of a specific constant (C) appropriate to the particular directivity characteristic. This constant eventually cancels out of the equation for "change in level." In any event the methodology assumes the aircraft radiates acoustical energy in an orderly, classically theoretical manner. In the case of helicopters the acoustical radiation patterns are hybrids; combinations of monopoles, dipoles, quadrapoles and various other anomolous acoustical interactions. Accordingly, the $10 \log (d_1/d_2)$ methodology (a first order approximation) may be improved upon. In order to make the most accurate correction of non-reference data to reference conditions a technique has been developed which uses empirical data rather than the $10 \log(d_1/d_2)$ technique.

This procedure uses "As Measured" acoustical data (see Appendix A) to develop "k" values (as substitutes for "10" in the equation above) for each acoustical event; thus relating the 10 dB down duration time (in seconds) to the energy metric (SEL or EPNL). The "k" values are derived as follows:

$$SEL=dB_{Am}+k(A) \log (DUR(A)) \text{ then} \\ k(A)=(SEL-dB_{Am})/\log(DUR(A))$$

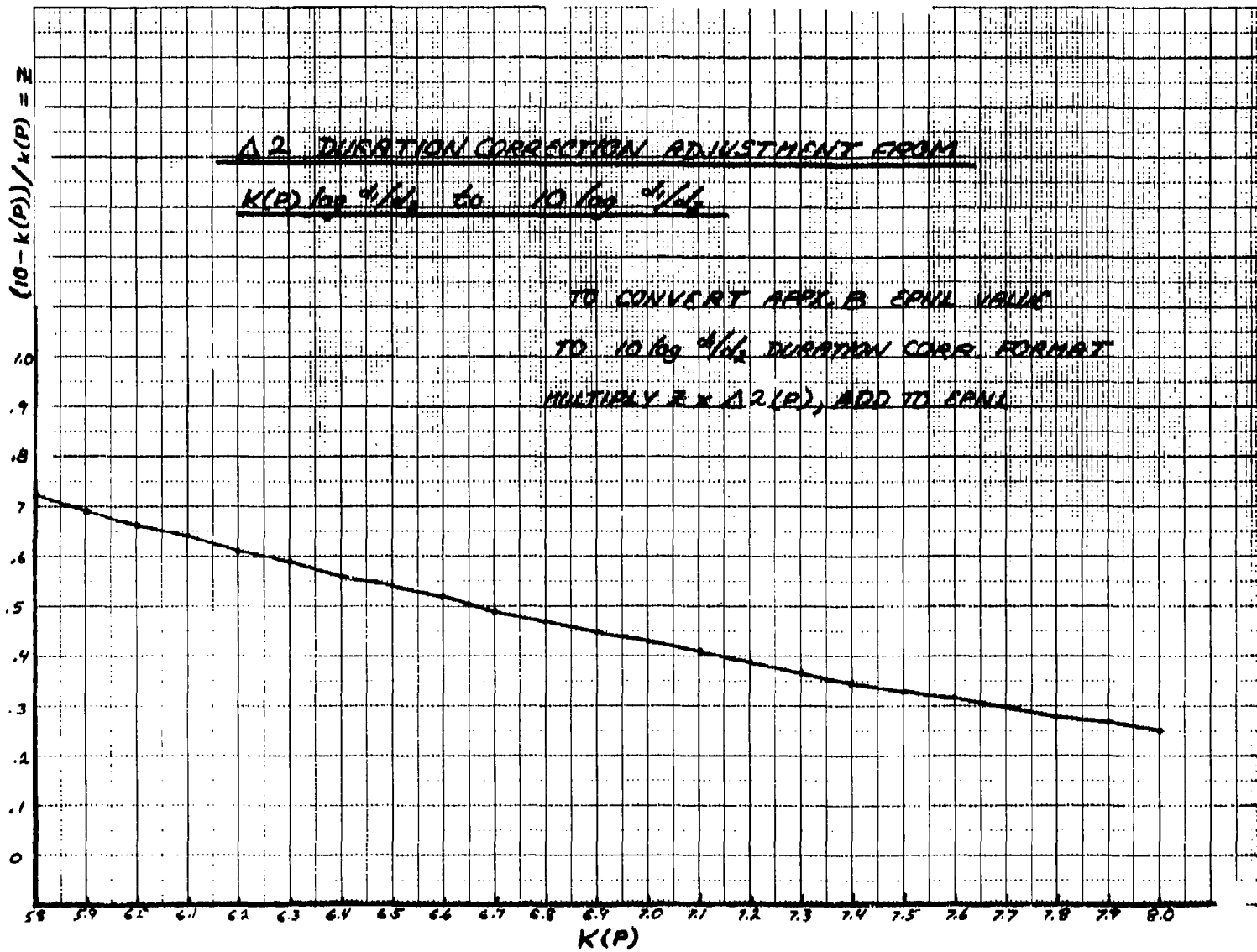
In the case of PNLT-based metrics, it is necessary to modify the equation in order to account for the EPNL normalizing time constant (10 seconds) where

$$EPNL=PNLTM+k(P) \log (DUR(P))-10 \\ k(P)=(EPNL+10-PNLTM)/\log(DUR(P))$$

As the event duration is influenced by both speed and distance, $k \log(d_1/d_2)$ can be used to account for distance duration affects while $k \log (V_2/V_1)$ could be used to account for speed duration affects. The only assumptions are that 10dB down duration time is directly proportional to distance and inversely proportional to speed. This is a reasonable assumption for slant distance encountered in this test. Thus a complete equation for all duration affects could be written $\Delta 2=k \log(d_1/d_2)+k \log(V_2/V_1)$.

While the necessary information is available in this report for application of speed-duration corrections no such corrections have been applied to Appendix B data. This course has been taken in order to allow the reader the flexibility of utilizing his own technique(s) and in recognition that speed affects on helicopter noise remains a developmental and often controversial topic.

FIGURE 3.6.1



Also on the topic of duration corrections, some readers might be interested in seeing how the Appendix B, EPNL values would change if the traditional $10 \log (d_1/d_2)$ methodology had been used. Figure 3.6.1 provides a quick technique in which the $k(P)$ value for any event is used to find a constant "Z". The adjustment is accomplished by simply multiplying "Z" times $\Delta 2(P)$ and adding the produce to the listed EPNL.

Regarding the topic of source-speed corrections the relationship between maximum sound level "L", (dBAm or PNLTM) and airspeed can be easily determined. By taking the slope of the curve $(\frac{dL}{dv})$ at the point of interest and multiplying

by the velocity deviation, $(V_T - V_R)$ one can obtain a correction value. Again, this report makes no source-speed corrections, however it does provide the information necessary for the reader to do so.

3.7 Other Metrics - In addition to the EPNL/PNLT family of metrics and the SEL/dBA family, the overall sound pressure level is presented as part of the "As Measured" data set in Appendix A.

3.8 Analysis System Time Constant/Slow Response - The TSC data analysis system utilizes a dynamic response time in the processing software which is equivalent to the sound level meter "slow response" characteristics. As cited above, this effective response is required under provisions of FAR-36.

4.0 Data Organization/Appendix Structure - The remainder of this report contains the data sets acquired during the measurement program. Each appendix contains its own table of contents or structural outline at the beginning. Relevant information and cross references are also provided and special abbreviations are identified. The appendices are presented in the following order:

Appendix

- A "As Measured" Noise Data - This appendix contains acoustical data prior to application of any correction.
- B Corrected Noise Data - This appendix contains acoustical data corrected to reference conditions. Tracking and position data used for corrections are then presented in Appendix C.
- C Flight Path Tracking Plots and Position Data - These plots and tables provide tracking and position information in great detail.
- D Helicopter Cockpit Data - These tables present cockpit instrument readings transcribed from color slides taken during individual flyover events.
- E Metecrological Data - The tables and plots provide detailed temperature, relative humidity, and wind vector information taken during the measurement program.

APPENDIX A

"AS MEASURED ACOUSTICAL DATA"

Appendix A

Appendix A is the "heart" of this report in that it presents the basic acoustical data set.

Appendix B which provides corrected data is subject to all of the usual debate which surrounds aircraft noise data correction procedures.

A brief synopsis of Appendix A data column headings is presented below:

EV	Event Number which corresponds across the board to other appendices referenced by test date.
EPNL	Effective Perceived Noise Level, the International noise certification metric.
NEL	Noise Exposure Level considered herein as synonymous with Sound Exposure Level (SEL), the time integration of the dBA time history over the 10dB down time. SEL is the metric most useful in developing noise contours.
dBAm	A-Weighted Sound Level (maximum), often abbreviated dB(A) the most widely used metric in community noise assessment.
OASPL	Overall Sound Pressure Level, the measure of maximum (slow response) acoustic pressure.
PNL(M)	Perceived Noise Level, a metric used in developing PNLT and EPNL.
PNLTM	Tone corrected perceived noise level, an adjusted PNL which accounts for additional annoyance associated with audible tones.
DUR(A)	The 10dB down duration time for the dBA time history.
DUR(P)	The 10dB down duration time for the PNLT time history.
TC	Tone Correction
Delta**	The change in EPNL assuming tones 800 Hz and below are pseudotones and excluding them from the PNLT calculations

Each set of data is headed by the microphone location, site number and test date. The target reference condition is specified above each data subset. Actual testing parameters can be verified by crosschecking with Appendix C and Appendix D (tracking and cockpit data).

Appendix A

Summary "As Measured" Noise Level Data are presented.

The key to the table numbering system is as follows:

Table No. A. 1-1. 1

Appendix No. _____ ↓

Helicopter No. & operation _____ ↓

Microphone location _____ ↓

	<u>Takeoff Approach</u>	<u>Flyover 500 ft</u>	<u>Flyover 300-1500 ft</u>	<u>Type</u>	<u>Date</u>
Table No.	A. 1-1, 1-2, 1-3			Sikorsky UH-60A	June 22, 1980
	2-1, 2-2, 2-3			Sikorsky S-76	June 23, 1980
	3-1, 3-2, 3-3			Augusta A-109	June 24, 1980
	4-1, 4-2, 4-3			Sikorsky S-76	June 25, 1980
	5-1, 5-2, 5-3			Sikorsky UH-60A	June 25, 1980
	6-1, 6-2, 6-3			Bell 206L	June 26, 1980
	A. 7-1, 7-2, 7-3			Sikorsky UH-60A	June 26, 1980

Microphone Location		
	1	centerline-center
	1H	centerline-center 10 meter
	1G	centerline-center (flush)
	2	centerline 150m west
	3	centerline 150m east
	4	sideline 164m north
	5	sideline 150m south
	5G	sideline 150m south (flush)
	6	sideline 284m north

TABLE NO. A.1-1.1 (REV.1)

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
8/26/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
----	------	-----	--------	-------	--------	---------	--------	--------	----	------

APPROACH

16	97.2	92.9	84.2	94.1	98.2	99.0	15.0	15.0	0.8	-0.6
17	99.1	94.4	87.7	99.1	102.2	102.9	11.5	10.5	0.8	-0.5
18	99.2	94.4	87.5	99.5	102.0	102.9	11.5	10.5	0.8	-0.5
19	98.9	94.1	87.2	99.1	101.7	102.6	12.0	11.5	0.8	-0.6
20	99.2	94.5	87.3	99.2	102.0	103.0	11.5	10.5	0.9	-0.5
21	99.0	94.3	87.7	99.1	102.1	102.8	12.0	10.5	0.7	-0.5
22	98.8	94.0	87.0	98.9	101.7	102.5	11.0	10.0	0.8	-0.5
23	99.7	95.1	89.0	99.9	103.1	103.8	11.0	10.5	0.8	-0.6
24	99.2	94.6	87.7	98.6	102.1	102.9	11.0	9.5	0.9	-0.7
Avg.	98.9	94.3	87.2	98.6	101.7	102.5	11.8	10.9	0.8	-0.5
Std Dv	0.7	0.6	1.3	1.7	1.4	1.4	1.2	1.6	0.1	0.1

TAKEOFF

8	89.8	85.4	77.1	86.7	89.7	91.3	14.0	14.0	1.6	-0.8
9	88.8	84.5	75.9	84.1	87.8	89.9	16.5	22.5	2.0	-0.8
10	88.0	83.9	74.0	84.0	87.6	89.7	18.5	17.5	2.1	-0.9
11	87.7	83.6	73.6	83.3	86.7	88.9	21.0	19.0	2.4	-0.9
12	88.3	84.2	74.3	83.6	88.2	90.4	23.0	17.5	2.2	-0.8
13	88.6	84.4	74.5	84.2	88.1	90.1	20.5	18.5	2.0	-0.9
14	89.1	84.8	74.3	83.0	87.9	90.2	25.0	23.0	2.3	-1.0
15	88.9	84.7	74.0	83.9	87.7	90.0	24.0	22.5	2.3	-0.9
Avg.	88.7	84.4	74.7	84.1	87.9	90.1	20.3	19.3	2.1	-0.9
Std Dv	0.7	0.5	1.2	1.1	0.8	0.7	3.8	3.2	0.2	0.1

500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED

52	91.1	87.4	80.3	89.4	92.3	93.6	11.5	12.0	1.3	-0.8
Avg.	91.1	87.4	80.3	89.4	92.3	93.6	11.5	12.0	1.3	-0.8
Std Dv	-	-	-	-	-	-	-	-	-	-

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 22, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED

27	93.7	90.0	81.9	91.3	94.4	95.2	16.0	16.0	0.9	-0.8
30	92.6	89.1	82.1	89.9	94.3	95.0	11.0	11.5	0.8	-0.7
33	94.1	90.5	82.1	91.0	94.0	95.1	14.0	14.5	1.3	-0.8
36	92.3	88.6	81.2	91.4	93.3	94.6	12.0	12.0	1.4	-0.7
Avg.	93.2	89.5	81.8	90.9	94.0	95.0	13.2	13.5	1.1	-0.8
Std Dv	0.8	0.9	0.4	0.7	0.5	0.3	2.2	2.1	0.3	0.0

500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED

26	94.5	91.1	84.1	94.9	96.1	97.1	10.0	11.0	1.6	-0.8
29	94.9	91.5	83.9	93.8	95.9	97.4	11.5	11.5	1.6	-0.8
32	94.4	91.1	85.1	93.4	97.3	98.0	10.0	10.5	0.7	-0.5
35	94.4	90.7	83.2	93.4	95.4	96.5	11.5	12.0	1.3	-0.7
Avg.	94.5	91.1	84.0	93.9	96.2	97.2	10.7	11.2	1.3	-0.7
Std Dv	0.2	0.3	0.8	0.7	0.8	0.6	0.9	0.6	0.4	0.1

500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED

25	96.1	92.6	84.2	97.1	96.5	97.7	12.0	12.5	1.1	-0.6
28	95.9	92.0	86.0	97.4	98.4	99.3	9.5	12.5	0.9	-0.6
31	97.5	94.2	87.7	98.5	99.7	101.1	10.0	10.0	1.4	-0.7
34	97.1	93.7	86.6	98.2	99.1	100.1	10.5	10.5	1.2	-0.6
Avg.	96.6	93.1	86.1	97.8	98.4	99.5	10.5	11.4	1.2	-0.6
Std Dv	0.8	1.0	1.5	0.7	1.4	1.5	1.1	1.3	0.2	0.1

500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED

49	95.6	91.5	84.2	99.9	97.4	98.6	11.5	11.5	1.3	-0.5
50	97.6	93.6	87.2	100.3	99.6	100.6	9.5	12.0	1.0	-0.5
51	95.9	91.9	84.2	99.3	97.0	98.1	12.0	12.5	1.1	-0.6
Avg.	96.4	92.3	85.2	99.8	98.0	99.1	11.0	12.0	1.1	-0.5
Std Dv	1.1	1.1	1.7	0.5	1.4	1.3	1.3	0.5	0.2	0.0

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 22, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

43	-	94.5	89.1	100.9	101.4	102.5	6.0	-	1.0	-
44	98.9	95.3	89.3	101.9	102.1	103.2	7.5	7.5	1.1	-0.6
Avg.	98.9	94.9	89.2	101.4	101.8	102.8	6.7	7.5	1.1	-0.6
Std Dv	-	0.6	0.1	0.7	0.5	0.5	1.1	-	0.0	-

700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

41	92.9	90.0	81.8	93.5	93.9	95.1	14.0	14.5	1.4	-0.6
42	93.2	90.0	81.9	94.0	93.4	94.4	16.5	17.5	1.4	-0.6
Avg.	93.1	90.0	81.8	93.8	93.6	94.7	15.2	16.0	1.4	-0.6
Std Dv	0.2	0.0	0.1	0.4	0.4	0.5	1.8	2.1	0.0	0.0

1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

1	91.6	88.6	80.4	93.3	92.3	93.1	14.5	15.5	1.0	-0.6
2	91.6	88.3	78.4	92.5	90.5	92.0	20.0	19.5	1.7	-0.8
3	91.4	88.3	78.1	92.1	89.9	91.4	20.5	19.5	1.5	-0.6
4	91.9	89.1	79.7	91.4	90.3	91.6	19.5	21.5	1.6	-0.8
5	91.3	88.5	79.5	91.9	90.9	92.0	17.0	20.0	1.2	-0.5
6	92.2	89.3	80.1	92.6	91.9	93.6	17.0	17.0	1.9	-0.8
40	91.4	88.7	79.3	91.9	90.7	91.9	17.5	16.5	1.2	-0.7
47	90.0	87.2	78.1	91.2	90.0	90.9	22.5	22.5	0.9	-0.8
48	90.4	87.5	78.8	90.9	90.0	91.1	16.5	19.5	1.3	-0.5
Avg.	91.3	88.4	79.2	92.0	90.7	92.0	18.3	19.1	1.4	-0.7
Std Dv	0.7	0.7	0.9	0.9	0.9	0.9	2.5	2.3	0.3	0.1

1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

37	-	86.2	76.0	89.9	87.5	89.0	21.0	-	1.4	-
38	-	85.8	75.9	88.4	86.8	88.2	22.5	-	1.4	-
45	88.5	86.0	75.2	89.2	86.9	88.2	29.5	27.5	1.3	-0.7
46	89.7	86.8	76.3	91.1	88.8	90.1	23.0	19.5	1.3	-0.8
Avg.	89.1	86.2	75.8	89.7	87.5	88.9	24.0	23.5	1.4	-0.7
Std Dv	0.9	0.4	0.5	1.2	0.9	0.9	3.8	5.7	0.1	0.0

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DDT/TSC
9/29/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
16	102.2	97.9	88.9	99.7	102.1	102.7	16.5	16.5	0.6	-0.3
17	101.2	96.9	89.6	100.0	103.3	103.8	12.0	12.0	0.4	-0.2
18	102.0	97.5	90.2	101.8	104.3	104.6	12.0	11.5	0.5	-0.1
19	101.9	97.5	90.1	101.4	104.1	104.5	12.5	12.5	0.4	-0.1
20	102.3	97.8	90.2	101.2	104.5	105.2	11.5	11.0	0.6	-0.1
21	102.1	97.7	90.7	102.1	104.6	104.9	11.5	11.0	0.2	-0.2
22	101.9	97.5	90.1	101.1	104.4	105.0	11.0	10.5	0.6	-0.2
23	102.4	98.0	91.9	102.2	105.1	105.4	10.5	11.5	0.3	-0.1
24	101.9	97.6	90.5	100.9	104.1	104.7	11.0	11.0	0.7	-0.2
Avg.	102.0	97.6	90.2	101.2	104.1	104.5	12.1	11.9	0.5	-0.2
Std Dv	0.3	0.3	0.8	0.9	0.9	0.8	1.8	1.8	0.1	0.1

TAKEOFF

8	94.1	89.4	81.3	89.9	93.6	95.3	13.5	14.5	2.0	-1.0
9	93.0	88.7	80.0	87.4	91.6	93.5	16.0	17.5	1.8	-1.0
10	92.3	88.0	78.9	87.2	90.7	92.5	17.0	18.0	1.8	-1.0
11	91.7	87.6	78.1	85.9	89.6	91.3	19.5	20.5	2.5	-1.0
12	92.2	87.9	78.5	87.2	90.6	92.6	17.5	18.0	2.5	-1.0
13	93.9	89.5	79.9	87.8	92.6	94.3	18.5	18.0	2.1	-1.0
14	93.5	89.1	79.1	87.1	91.7	93.4	20.5	21.0	1.7	-1.0
15	92.9	88.7	78.8	87.3	91.2	93.3	19.0	18.5	2.5	-0.9
Avg.	92.9	88.6	79.3	87.5	91.4	93.3	17.7	18.2	2.1	-1.0
Std Dv	0.8	0.7	1.0	1.1	1.3	1.2	2.2	2.0	0.3	0.0

500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED

52	95.1	91.5	84.4	93.2	96.5	97.7	10.5	12.0	1.2	-0.5
Avg.	95.1	91.5	84.4	93.2	96.5	97.7	10.5	12.0	1.2	-0.5
Std Dv	-	-	-	-	-	-	-	-	-	-

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.10

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE - CENTER (FLUSH)

JUNE 22, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED

27	97.3	93.5	85.7	95.1	98.2	99.5	14.5	15.5	1.3	-0.4
30	96.3	92.5	85.7	94.5	98.4	99.0	10.5	11.0	0.9	-0.4
33	97.9	94.3	86.3	95.4	98.6	99.6	13.0	13.5	1.0	-0.3
36	96.5	92.6	85.4	96.0	97.6	98.6	11.5	12.5	1.2	-0.6
Avg.	97.0	93.2	85.8	95.2	98.2	99.2	12.4	13.1	1.1	-0.4
Std Dv	0.8	0.8	0.4	0.6	0.4	0.5	1.7	1.9	0.2	0.2

500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED

26	98.0	94.5	87.5	97.8	99.9	100.9	9.0	10.0	1.1	-0.4
29	98.9	95.4	88.2	97.8	100.4	101.6	10.0	11.5	1.1	-0.4
32	98.4	94.9	88.0	97.4	100.6	101.6	10.5	10.5	1.3	-0.4
35	98.5	94.9	87.3	97.4	99.9	100.7	11.0	12.0	1.0	-0.4
Avg.	98.5	94.9	87.8	97.6	100.2	101.2	10.1	11.0	1.1	-0.4
Std Dv	0.4	0.4	0.5	0.2	0.4	0.5	0.9	0.9	0.1	0.0

500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED

25	99.7	96.1	88.2	99.4	100.5	101.5	11.0	12.5	1.2	-0.4
28	99.3	95.3	89.1	99.4	101.9	103.0	9.0	11.5	1.1	-0.4
31	101.1	97.8	91.3	101.0	103.1	104.2	9.5	9.5	1.1	-0.4
34	100.4	96.7	89.8	100.7	102.7	103.9	10.5	10.0	1.2	-0.5
Avg.	100.1	96.5	89.6	100.1	102.1	103.2	10.0	10.9	1.2	-0.4
Std Dv	0.8	1.1	1.3	0.8	1.1	1.2	0.9	1.4	0.0	0.1

500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED

49	100.8	96.9	90.9	102.3	102.9	103.8	9.5	10.5	1.2	-0.3
50	101.4	97.6	91.6	102.6	104.0	104.9	9.5	11.0	0.8	-0.5
51	99.9	95.9	89.1	101.5	101.1	102.1	11.0	12.0	1.2	-0.5
Avg.	100.7	96.8	90.5	102.1	102.7	103.6	10.0	11.2	1.1	-0.4
Std Dv	0.8	0.8	1.3	0.5	1.5	1.4	0.9	0.8	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.10

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE - CENTER (FLUSH)

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

43	-	99.2	94.3	104.1	106.5	107.5	6.0	-	1.0	-
44	102.6	99.0	93.6	104.3	106.0	107.2	6.5	7.0	1.2	-0.4
Avg.	102.6	99.1	93.9	104.2	106.3	107.3	6.2	7.0	1.1	-0.4
Std Dv	-	0.2	0.5	0.2	0.3	0.2	0.4	-	0.1	-

700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

41	97.1	93.8	86.0	94.2	98.0	99.0	13.5	15.0	1.0	-0.3
42	97.2	93.7	85.6	97.0	97.5	99.0	16.5	16.0	1.5	-0.5
Avg.	97.1	93.8	85.8	96.6	97.7	99.0	15.0	15.5	1.3	-0.4
Std Dv	0.1	0.1	0.3	0.6	0.3	0.0	2.1	0.7	0.4	0.1

1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

1	95.3	92.1	83.5	95.1	95.8	96.6	14.5	16.0	0.9	-0.4
2	95.3	91.7	81.5	94.5	93.6	95.1	19.5	20.0	1.7	-0.5
3	95.4	91.9	82.3	94.9	94.5	96.0	19.5	19.0	1.6	-0.5
4	96.0	93.0	84.5	94.7	95.2	96.7	16.0	19.0	1.5	-0.4
5	95.5	92.6	83.7	94.5	95.5	96.3	16.5	18.0	0.9	-0.3
6	96.4	93.3	83.9	95.4	95.9	96.9	16.5	17.0	1.0	-0.5
39	95.6	92.4	82.9	94.6	94.8	95.9	17.0	20.0	1.0	-0.4
40	95.1	92.1	82.6	94.1	95.1	96.1	18.0	16.5	0.9	-0.5
47	94.9	91.6	82.3	94.4	94.3	95.3	22.0	22.0	1.2	-0.4
48	94.9	91.8	83.0	93.8	94.7	95.8	16.5	17.0	1.3	-0.4
Avg.	95.5	92.2	83.0	94.6	94.9	96.1	17.6	18.4	1.2	-0.4
Std Dv	0.5	0.6	0.9	0.5	0.7	0.6	2.2	1.9	0.3	0.1

1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

37	-	90.1	79.7	92.6	92.1	93.2	19.0	-	1.1	-
38	-	93.7	83.9	96.9	96.0	97.0	23.5	-	1.0	-
45	92.8	89.9	79.5	91.9	91.4	92.5	26.0	25.0	1.1	-0.4
46	93.7	90.5	80.0	93.6	92.5	94.1	23.0	19.5	1.7	-0.5
Avg.	93.2	91.1	80.8	93.7	93.0	94.2	22.9	22.3	1.2	-0.5
Std Dv	0.7	1.8	2.1	2.2	2.0	2.0	2.9	3.9	0.3	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER 10 METER

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
APPROACH										
16	96.3	92.1	83.0	92.5	97.0	97.5	16.5	15.5	0.5	-0.3
17	99.3	94.7	87.1	99.0	101.7	102.3	12.5	10.5	0.6	-0.2
18	100.1	95.1	87.7	100.7	102.9	103.4	12.0	10.5	0.5	-0.2
19	100.3	95.5	88.3	101.2	103.3	103.9	12.0	10.0	0.6	-0.3
20	100.8	96.2	89.2	101.4	104.2	104.9	11.0	9.5	0.7	-0.2
21	100.7	95.8	89.1	102.3	103.9	104.2	10.5	10.0	0.4	-0.3
22	100.3	95.7	88.9	101.4	103.9	104.5	10.5	9.0	0.6	-0.2
23	99.4	95.0	88.9	101.0	102.9	103.1	11.0	10.0	0.2	-0.1
24	99.1	94.5	87.8	100.1	102.5	103.2	10.0	9.5	0.7	-0.3
Avg.	99.6	95.0	87.8	100.0	102.5	103.0	11.8	10.5	0.5	-0.2
Std Dev	1.4	1.2	1.9	3.0	2.2	2.2	2.0	1.9	0.1	0.0
TAKEOFF										
8	90.2	85.5	77.4	86.0	90.5	92.0	14.5	14.0	1.7	-0.9
9	89.3	84.9	76.1	83.6	88.5	90.0	22.0	22.5	2.2	-0.9
10	88.6	84.3	74.6	83.6	87.5	89.4	24.0	23.0	2.4	-0.9
11	88.1	84.0	74.0	82.4	86.0	88.3	26.5	25.5	2.6	-0.8
12	88.4	84.4	74.5	83.8	87.2	89.5	30.5	21.5	2.7	-0.4
13	91.4	86.8	77.0	85.7	89.9	92.2	24.0	22.0	2.5	-0.9
14	90.8	86.4	75.8	85.1	88.9	91.4	27.5	25.0	2.5	-0.8
15	-	86.2	75.6	85.4	88.9	91.5	26.0	-	2.6	-
Avg.	89.6	85.3	75.6	84.5	88.4	90.6	24.4	21.9	2.4	-0.8
Std Dev	1.3	1.1	1.2	1.3	1.5	1.4	4.7	3.8	0.3	0.2
500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED										
52	90.8	87.2	80.2	85.6	92.2	93.3	11.5	13.0	1.1	-0.6
Avg.	90.8	87.2	80.2	85.6	92.2	93.3	11.5	13.0	1.1	-0.6
Std Dev	-	-	-	-	-	-	-	-	-	-

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H CENTERLINE - CENTER 10 METER

JUNE 22, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED

27	93.3	89.4	81.4	91.8	94.6	95.2	16.0	16.0	0.7	-0.6
30	92.6	88.6	81.3	91.8	94.6	95.1	11.0	12.0	0.5	-0.5
33	94.0	90.2	82.0	91.9	94.8	95.6	14.5	14.0	1.1	-0.6
36	92.6	88.7	81.8	91.7	94.2	94.9	11.5	13.5	0.7	-0.6
Avg.	93.1	89.2	81.6	91.8	94.5	95.2	13.2	13.9	0.7	-0.6
Std Dv	0.6	0.7	0.3	0.1	0.3	0.3	2.4	1.7	0.3	0.0

500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED

26	94.3	90.4	83.1	94.2	96.1	97.1	10.0	11.0	1.4	-0.4
29	94.7	91.0	84.1	94.1	96.7	97.8	10.0	11.0	1.4	-0.5
32	94.8	91.2	84.5	93.4	97.5	98.1	10.5	10.5	0.7	-0.4
35	94.4	90.6	83.2	93.6	96.2	96.8	12.0	12.5	0.6	-0.6
Avg.	94.5	90.8	83.7	93.8	96.6	97.5	10.6	11.2	1.1	-0.5
Std Dv	0.2	0.3	0.7	0.4	0.6	0.6	0.9	0.9	0.4	0.1

500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED

25	95.9	92.0	84.4	96.6	96.8	97.9	11.0	11.5	1.1	-0.7
28	95.9	91.8	84.9	96.4	97.7	98.5	12.5	13.0	0.8	-0.6
31	97.1	93.5	86.6	96.9	98.9	100.2	10.0	10.0	1.4	-0.7
34	96.7	93.0	86.0	96.5	98.6	99.9	11.0	11.0	1.5	-0.8
Avg.	96.4	92.6	85.5	96.6	98.0	99.1	11.1	11.4	1.2	-0.7
Std Dv	0.6	0.8	1.0	0.2	0.9	1.1	1.0	1.2	0.3	0.1

500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED

49	97.7	93.6	87.3	99.0	100.0	100.8	10.0	10.5	1.2	-0.7
50	98.6	94.5	88.0	99.5	100.9	101.6	10.5	11.5	1.0	-0.5
51	96.6	92.2	85.9	98.5	98.3	99.1	9.5	11.5	1.3	-0.7
Avg.	97.7	93.4	87.1	99.0	99.7	100.5	10.0	11.2	1.2	-0.6
Std Dv	1.0	1.1	1.1	0.5	1.3	1.3	0.5	0.6	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H CENTERLINE - CENTER 10 METER

JUNE 22, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

44	99.7	96.1	90.3	101.1	103.5	104.3	7.0	7.5	0.9	-0.5
Avg.	99.7	96.1	90.3	101.1	103.5	104.3	7.0	7.5	0.8	-0.5
Std Dv	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

41	93.4	90.0	81.8	93.2	94.5	95.6	13.5	14.0	1.2	-0.6
42	94.1	90.4	82.4	93.3	94.4	95.6	16.0	16.0	1.2	-0.7
Avg.	93.8	90.2	82.1	93.2	94.4	95.6	14.7	15.0	1.2	-0.7
Std Dv	0.5	0.3	0.4	0.0	0.1	0.0	1.8	1.4	0.0	0.1

1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

1	88.4	86.0	77.1	86.4	88.2	89.2	14.5	15.5	1.3	-0.6
2	87.7	84.8	74.5	86.1	86.1	87.9	19.5	19.0	1.8	-0.8
3	88.4	85.6	76.3	86.1	87.8	89.0	18.0	19.0	1.5	-0.7
4	88.7	86.4	77.9	86.6	88.4	89.7	17.0	17.0	1.4	-0.9
5	88.6	86.3	77.7	85.6	89.1	90.2	15.5	15.5	1.1	-0.7
6	89.0	86.5	77.8	86.4	88.2	89.6	15.5	16.5	1.4	-0.8
39	-	88.4	78.5	90.6	90.4	92.1	21.0	-	1.7	-
40	91.3	88.2	78.4	90.6	90.5	91.9	18.0	16.5	1.6	-0.7
47	91.7	88.3	78.6	91.5	90.7	92.3	24.0	22.5	1.6	-0.9
48	91.8	88.5	79.3	90.9	91.1	92.5	19.5	19.5	1.4	-0.6
Avg.	89.5	86.9	77.6	88.1	89.1	90.5	18.2	17.8	1.5	-0.7
Std Dv	1.6	1.3	1.4	2.4	1.6	1.6	2.9	2.3	0.2	0.1

1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

37	-	85.6	75.6	88.3	87.0	88.6	18.0	-	1.6	-
38	88.5	85.6	75.7	87.1	87.6	89.2	22.5	21.5	1.6	-0.7
45	89.3	86.3	75.5	88.4	87.9	89.7	28.5	26.0	1.9	-0.8
46	90.7	87.1	78.3	91.7	91.0	91.6	20.0	19.5	0.6	-0.7
Avg.	89.5	86.2	76.3	88.9	88.3	89.8	22.2	22.3	1.4	-0.7
Std Dv	1.1	0.7	1.4	2.0	1.8	1.3	4.6	3.3	0.5	0.0

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
APPROACH										
16	97.7	92.8	84.9	94.5	99.2	99.9	12.5	12.0	0.7	-0.6
17	99.2	94.5	86.5	97.5	101.1	101.7	12.0	11.5	0.6	-0.4
18	100.3	95.4	88.3	100.7	103.3	104.0	11.5	10.0	0.7	-0.4
19	100.3	95.5	88.4	100.7	103.2	103.9	11.5	10.5	0.7	-0.5
20	100.7	96.0	89.0	100.9	103.8	104.5	11.0	9.5	0.8	-0.5
21	100.8	95.9	89.5	101.2	104.1	104.9	10.0	10.0	0.8	-0.6
22	100.3	95.6	89.0	100.8	103.8	104.6	10.5	9.5	0.8	-0.5
23	100.4	95.8	89.4	100.9	103.8	104.5	10.0	9.5	0.7	-0.4
24	100.6	96.0	89.3	100.4	103.6	104.3	10.5	9.5	0.7	-0.5
Avg.	100.0	95.3	88.3	99.7	102.9	103.6	11.1	10.2	0.7	-0.5
Std Dev	1.0	1.0	1.6	2.2	1.7	1.7	0.9	0.9	0.1	0.1

TAKEOFF

8	-	83.7	75.6	84.7	88.2	89.8	13.0	-	1.7	-
9	-	82.3	74.3	83.0	87.5	89.6	13.0	-	2.1	-
10	87.7	83.8	73.5	81.5	86.8	88.9	27.5	20.0	2.2	-0.9
11	88.0	84.0	73.0	81.4	86.1	88.5	33.0	30.0	2.4	-0.9
12	88.0	84.0	73.5	82.1	87.1	89.2	23.5	21.5	2.2	-1.0
13	88.1	83.9	73.8	82.5	86.8	88.9	24.0	23.0	2.1	-1.0
14	87.6	83.4	72.4	81.7	86.2	88.5	26.5	23.0	2.3	-1.0
15	87.4	83.3	72.8	81.9	85.9	88.1	24.0	22.0	2.2	-1.0
Avg.	87.8	83.6	73.6	82.3	86.8	88.9	23.1	23.3	2.2	-1.0
Std Dev	0.3	0.6	1.0	1.1	0.8	0.6	6.9	3.5	0.2	0.0

500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED

52	92.4	88.2	81.6	89.0	94.1	95.8	11.0	10.5	1.7	-0.9
Avg.	92.4	88.2	81.6	89.0	94.1	95.8	11.0	10.5	1.7	-0.9
Std Dev	-	-	-	-	-	-	-	-	-	-

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED

27	93.9	90.0	81.5	91.6	94.1	95.3	13.5	14.0	1.2	-0.8
30	93.3	89.6	82.1	91.5	95.3	96.7	13.0	11.5	1.4	-0.6
33	95.2	91.5	84.3	93.2	97.3	98.5	11.5	11.0	1.2	-0.9
36	92.9	89.1	82.2	91.6	94.4	95.2	11.0	12.0	0.8	-0.7
Avg.	93.9	90.1	82.5	92.0	95.3	96.4	12.2	12.1	1.2	-0.8
Std Dv	1.0	1.0	1.2	0.8	1.4	1.5	1.2	1.3	0.3	0.1

500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED

26	93.8	90.2	83.7	93.7	95.9	97.0	9.5	10.0	1.1	-0.4
29	94.7	91.3	84.0	93.8	96.4	97.0	11.0	11.0	0.6	-0.6
32	95.1	91.6	85.2	94.3	98.0	99.1	8.5	9.0	1.1	-0.6
35	94.8	91.1	82.9	93.0	95.4	96.6	12.0	12.5	1.3	-0.7
Avg.	94.6	91.1	83.9	93.7	96.4	97.4	10.2	10.6	1.0	-0.5
Std Dv	0.6	0.6	1.0	0.5	1.1	1.1	1.6	1.5	0.3	0.1

500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED

25	96.2	92.8	85.1	96.9	97.2	98.5	11.0	12.5	1.2	-0.7
28	95.3	92.0	85.6	96.8	98.1	99.2	9.0	10.0	1.1	-0.5
31	97.9	94.7	87.4	97.6	99.4	101.0	10.5	10.5	1.6	-0.7
34	96.6	93.0	84.6	96.7	97.1	98.3	13.0	13.5	1.3	-0.6
Avg.	96.5	93.1	85.7	97.0	98.0	99.2	10.9	11.6	1.3	-0.6
Std Dv	1.1	1.1	1.2	0.4	1.1	1.2	1.7	1.7	0.2	0.1

500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED

49	97.4	93.4	86.9	98.5	99.4	100.9	9.5	10.5	1.6	-0.8
50	97.4	93.8	88.9	98.5	101.2	102.1	8.0	8.5	0.9	-0.4
51	96.5	92.4	85.7	97.0	98.2	99.7	10.5	11.0	1.7	-0.8
Avg.	97.1	93.2	87.2	98.0	99.6	100.9	9.3	10.0	1.4	-0.6
Std Dv	0.5	0.7	1.6	0.9	1.5	1.2	1.3	1.3	0.4	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
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300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

43	99.4	95.7	90.1	99.7	103.0	103.8	8.0	8.0	1.1	-0.6
44	100.1	96.5	91.4	101.3	103.8	104.7	7.0	7.0	1.0	-0.7
Avg.	99.7	96.1	90.7	100.5	103.4	104.3	7.5	7.5	1.1	-0.7
Std Dv	0.5	0.5	0.9	1.1	0.5	0.7	0.7	0.7	0.1	0.1

700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

41	94.4	91.1	83.0	94.0	94.9	96.1	12.5	14.0	1.2	-0.6
42	94.6	91.3	84.1	94.6	95.6	97.4	11.5	12.0	1.8	-0.8
Avg.	94.5	91.2	83.5	94.3	95.3	96.8	12.0	13.0	1.5	-0.7
Std Dv	0.1	0.1	0.8	0.5	0.5	1.0	0.7	1.4	0.4	0.1

1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

1	92.7	89.9	81.7	92.9	93.6	94.5	14.5	14.5	0.9	-0.6
2	92.7	89.4	79.4	92.4	91.4	93.0	19.0	18.0	1.6	-0.7
3	92.4	89.3	79.6	92.4	91.4	92.6	19.0	21.0	1.4	-0.7
4	93.6	90.7	82.2	92.3	93.3	94.7	19.0	19.5	1.4	-0.9
5	92.7	90.1	81.3	92.5	92.6	93.7	17.0	19.5	1.1	-0.6
6	93.5	90.7	80.8	92.6	92.2	93.6	18.5	18.5	1.4	-0.8
39	92.0	89.3	78.9	90.5	90.3	91.7	20.0	20.0	1.7	-0.7
40	92.4	89.5	80.4	90.5	91.7	93.2	16.5	17.5	1.9	-0.7
47	91.7	88.6	78.4	90.3	90.1	91.5	20.0	20.0	2.0	-0.9
48	-	88.2	79.4	91.1	91.1	92.4	13.0	-	1.5	-
Avg.	92.6	89.6	80.2	91.7	91.8	93.1	17.6	18.7	1.5	-0.7
Std Dv	0.6	0.8	1.3	1.0	1.2	1.1	2.4	1.9	0.3	0.1

1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

37	90.3	87.4	76.7	88.9	87.9	89.3	24.0	29.0	1.5	-0.9
38	-	86.0	77.4	88.2	88.6	89.7	13.0	-	1.1	-
45	-	87.3	75.9	87.8	87.5	89.0	33.5	-	1.5	-
46	90.4	87.2	77.6	90.1	89.4	90.7	23.0	22.5	1.4	-0.7
Avg.	90.3	87.0	76.9	88.7	88.4	89.7	23.4	25.8	1.4	-0.8
Std Dv	0.1	0.7	0.8	1.0	0.8	0.8	8.4	4.6	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

16	96.9	92.5	83.8	94.4	97.7	98.5	14.5	14.0	0.8	-0.6
17	98.2	93.4	85.7	98.1	100.3	101.1	13.0	12.5	0.9	-0.7
18	97.8	93.0	85.5	97.3	99.3	100.1	13.0	12.5	1.1	-0.6
19	97.9	93.3	85.6	97.6	99.7	100.6	13.5	12.0	1.0	-0.4
20	98.1	93.4	85.6	97.9	100.3	101.3	13.5	12.5	1.0	-0.6
21	98.0	93.3	85.7	97.9	99.8	100.9	13.0	12.5	1.1	-0.6
22	98.0	93.4	86.1	97.8	100.1	101.0	13.0	11.5	0.9	-0.7
23	98.1	93.8	86.2	98.0	100.1	100.8	14.5	12.5	1.1	-0.4
24	97.3	92.8	86.3	97.3	100.2	101.1	11.5	11.0	0.9	-0.6
Avg.	97.8	93.2	85.6	97.4	99.7	100.6	13.3	12.3	1.0	-0.6
Std Dv	0.4	0.4	0.7	1.2	0.8	0.9	0.9	0.8	0.1	0.1

TAKEOFF

8	92.2	87.4	80.8	89.4	93.8	95.2	9.0	10.0	1.4	-0.6
9	91.7	87.1	79.2	86.4	91.7	93.0	17.5	17.5	1.5	-0.6
10	90.9	86.3	78.4	87.2	91.0	92.4	18.0	18.0	1.3	-0.7
11	90.6	86.1	76.6	86.5	89.8	91.7	21.0	20.0	1.9	-0.7
12	91.1	86.5	78.4	87.1	91.4	92.9	17.5	17.5	1.4	-0.7
13	91.8	86.9	78.9	88.4	91.9	93.4	14.5	15.0	1.6	-0.8
14	91.3	86.7	77.6	86.8	90.7	92.6	18.5	16.5	1.9	-0.8
15	91.2	86.6	77.9	87.5	91.5	92.7	17.0	16.5	1.8	-0.7
Avg.	91.3	86.7	78.5	87.4	91.5	93.0	16.6	16.4	1.6	-0.7
Std Dv	0.5	0.4	1.2	1.0	1.1	1.0	3.6	2.9	0.2	0.1

500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED

52	91.7	88.0	80.7	89.3	93.4	94.5	11.5	11.5	1.4	-0.8
Avg.	91.7	88.0	80.7	89.3	93.4	94.5	11.5	11.5	1.4	-0.8
Std Dv	-	-	-	-	-	-	-	-	-	-

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED

27	91.7	88.0	80.6	90.4	92.9	93.6	14.5	15.0	0.8	-0.7
30	91.8	88.1	80.7	90.2	93.2	94.6	12.5	12.5	1.4	-0.6
33	92.9	89.1	81.5	91.1	94.2	94.8	13.0	15.0	0.6	-0.7
36	91.7	88.0	80.6	91.0	92.7	93.7	12.0	12.5	1.5	-0.7
Avg.	92.0	88.3	80.8	90.7	93.2	94.2	13.0	13.7	1.1	-0.7
Std Dv	0.6	0.5	0.5	0.4	0.7	0.6	1.1	1.4	0.5	0.1

500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED

26	93.2	90.0	83.3	93.8	95.4	96.6	9.0	11.5	1.2	-0.5
29	93.9	90.5	82.7	93.6	94.9	95.8	11.0	11.5	1.3	-0.7
32	93.6	90.3	83.9	92.8	96.2	97.0	9.5	10.5	1.1	-0.4
35	93.2	89.7	82.1	92.6	94.4	95.1	11.5	11.5	0.7	-0.6
Avg.	93.5	90.1	83.0	93.2	95.2	96.1	10.2	11.2	1.1	-0.6
Std Dv	0.3	0.4	0.8	0.6	0.8	0.8	1.2	0.5	0.2	0.1

500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED

25	94.7	91.2	83.1	95.6	95.1	96.1	13.5	14.0	1.0	-0.6
28	94.9	91.2	83.8	96.8	96.1	97.2	11.5	11.5	1.1	-0.5
31	96.0	92.9	85.3	96.3	97.0	98.3	11.0	11.5	1.2	-0.6
34	96.3	93.0	86.1	97.4	97.8	98.8	10.0	11.0	1.0	-0.6
Avg.	95.5	92.1	84.6	96.5	96.5	97.6	11.5	12.0	1.1	-0.6
Std Dv	0.8	1.0	1.3	0.7	1.2	1.2	1.5	1.4	0.1	0.0

500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED

49	97.3	93.2	85.4	99.2	97.8	98.9	13.0	13.0	1.2	-0.6
50	97.6	93.7	87.7	100.6	99.9	100.6	9.5	10.0	0.9	-0.4
51	96.0	91.7	84.1	98.1	96.4	97.6	12.5	15.0	1.3	-0.6
Avg.	97.0	92.9	85.7	99.3	98.0	99.0	11.7	12.7	1.2	-0.5
Std Dv	0.8	1.0	1.8	1.2	1.8	1.5	1.9	2.5	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 22, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

43	98.7	95.0	89.2	101.1	101.6	102.6	7.5	9.0	1.0	-0.6
44	99.3	95.6	90.1	102.1	102.6	103.5	6.5	8.0	0.8	-0.5
Avm.	99.0	95.3	89.6	101.6	102.1	103.0	7.0	8.5	0.9	-0.5
Std Dv	0.4	0.4	0.6	0.8	0.7	0.6	0.7	0.7	0.1	0.1

700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

41	93.5	90.3	82.5	94.5	94.4	95.2	15.5	16.5	0.9	-0.6
42	94.2	90.7	82.1	95.3	94.4	95.4	13.5	18.5	1.0	-0.6
Avm.	93.8	90.5	82.3	94.9	94.4	95.3	14.5	17.5	1.0	-0.6
Std Dv	0.5	0.3	0.3	0.6	0.0	0.2	1.4	1.4	0.1	0.0

1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

1	90.9	88.1	79.4	91.9	91.2	92.2	15.5	16.5	1.0	-0.7
2	90.7	87.6	76.9	91.1	88.6	90.2	22.0	22.0	1.6	-0.8
3	91.6	88.6	78.3	92.2	89.7	91.8	20.0	20.5	2.2	-0.6
4	91.7	89.0	79.9	91.4	90.6	92.1	18.5	21.5	1.5	-0.8
5	91.4	88.7	79.8	92.0	90.8	91.8	16.0	19.5	1.0	-0.6
6	91.9	89.2	79.4	91.7	90.7	91.7	20.5	20.5	1.2	-0.7
39	91.8	89.0	78.3	90.9	89.7	90.9	25.0	25.0	1.2	-0.7
40	91.9	88.9	79.8	92.3	91.1	92.3	21.0	22.0	1.4	-0.6
47	91.0	88.2	79.3	92.2	91.0	92.0	19.0	18.5	1.0	-0.8
48	91.4	88.5	79.4	91.6	90.9	92.1	17.0	17.5	1.6	-0.5
Avm.	91.5	88.6	79.1	91.7	90.4	91.7	19.4	20.3	1.4	-0.7
Std Dv	0.4	0.5	1.0	0.5	0.8	0.7	2.9	2.5	0.4	0.1

1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED

37	-	85.7	75.2	88.8	86.1	87.2	25.0	-	1.1	-
38	-	85.6	74.7	89.1	86.5	87.3	22.5	-	1.2	-
45	88.4	85.6	75.8	88.2	86.6	87.8	30.5	30.5	1.2	-0.7
46	89.2	86.2	77.2	90.8	88.5	89.7	18.5	19.5	1.2	-0.5
Avm.	88.8	85.8	75.7	89.2	86.9	88.0	24.1	25.0	1.2	-0.6
Std Dv	0.5	0.3	1.1	1.1	1.1	1.1	5.0	7.8	0.1	0.1

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

17	98.7	95.0	87.2	95.9	99.7	101.0	12.0	12.0	1.4	-1.0
18	99.1	95.0	87.0	96.3	99.9	101.1	13.5	13.5	1.2	-1.0
19	99.6	95.6	86.8	96.1	99.8	101.1	14.0	13.5	1.2	-1.0
20	99.3	95.6	87.4	96.0	99.9	100.9	13.0	13.5	1.0	-0.9
21	98.9	95.0	87.1	96.1	99.8	101.0	12.5	13.0	1.3	-1.1
22	99.1	95.4	87.4	96.3	99.9	100.9	12.5	13.0	1.0	-1.0
23	97.9	94.2	87.1	94.5	98.8	99.8	12.0	12.5	1.2	-1.1
24	97.3	93.9	84.7	94.3	97.3	98.6	18.0	16.5	1.5	-0.9
Avg.	98.7	95.0	86.8	95.7	99.4	100.5	13.4	13.4	1.2	-1.0
Std Dev	0.8	0.6	0.9	0.8	0.9	0.9	2.0	1.3	0.2	0.1

TAKEOFF

8	-	85.5	75.8	87.1	87.8	89.4	20.0	-	1.9	-
9	89.5	85.9	75.5	85.3	87.1	88.8	26.5	25.5	1.7	-0.7
10	89.0	85.2	74.9	85.7	87.1	88.5	22.0	23.0	1.4	-0.7
11	88.6	84.9	74.9	84.9	86.1	88.1	22.0	22.5	1.7	-0.8
12	89.9	85.9	76.2	85.9	87.9	89.5	21.5	22.5	1.6	-0.7
13	89.7	85.6	75.6	85.8	87.7	89.2	20.5	21.0	1.8	-0.9
14	89.3	85.6	75.3	84.6	86.9	88.6	23.0	23.0	1.7	-0.8
15	89.3	85.5	75.8	85.4	87.3	89.0	21.0	21.5	1.7	-0.7
Avg.	89.3	85.5	75.5	85.6	87.3	88.9	22.1	22.7	1.7	-0.8
Std Dev	0.4	0.3	0.4	0.7	0.5	0.5	2.0	1.4	0.1	0.1

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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500 FT. FLYBY @ 115 KTS INDICATED AIRSPEED

27	92.9	90.1	82.2	89.9	93.3	94.8	18.0	18.0	1.6	-0.9
30	92.5	89.7	81.9	89.5	92.9	94.1	13.0	13.0	1.2	-0.7
33	93.3	90.5	82.6	91.2	93.6	95.4	14.5	15.5	1.8	-1.0
36	93.4	90.6	82.7	89.3	93.7	94.9	16.0	16.5	1.2	-0.8
Avg.	93.0	90.2	82.3	90.0	93.4	94.8	15.4	15.7	1.5	-0.9
Std Dev	0.4	0.4	0.4	0.9	0.4	0.5	2.1	2.1	0.3	0.1

500 FT. FLYBY @ 132 KTS INDICATED AIRSPEED

26	93.6	90.8	83.9	92.9	94.6	96.0	11.0	14.5	1.3	-0.9
29	95.6	92.8	85.4	92.9	96.5	97.9	13.0	15.0	1.4	-1.0
32	94.3	91.4	84.1	91.1	95.6	97.3	12.5	13.0	1.7	-0.8
35	94.6	91.7	84.4	92.6	95.4	96.8	12.0	14.0	1.4	-1.0
Avg.	94.5	91.7	84.5	92.4	95.5	97.0	12.1	14.1	1.5	-0.9
Std Dev	0.8	0.8	0.7	0.9	0.8	0.8	0.9	0.9	0.2	0.1

500 FT. FLYBY @ 152 KTS INDICATED AIRSPEED

25	97.2	93.8	85.7	97.2	97.1	98.3	14.5	16.0	1.5	-0.7
28	97.3	93.6	85.9	98.3	97.2	98.5	16.5	16.5	1.3	-0.5
31	96.9	93.6	85.4	94.8	96.7	98.2	16.0	17.5	2.1	-1.0
34	96.7	93.3	86.1	97.4	97.3	98.5	12.5	16.5	1.2	-0.6
Avg.	97.0	93.6	85.8	96.9	97.1	98.4	14.9	16.6	1.5	-0.7
Std Dev	0.3	0.2	0.3	1.5	0.3	0.1	1.8	0.6	0.4	0.2

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYBY @ 150 KTS INDICATED AIRSPEED

43	97.4	93.7	86.1	97.4	98.2	99.5	12.0	12.0	1.6	-0.9
44	98.9	95.2	89.6	99.3	100.9	102.4	8.0	10.5	1.7	-0.8
Avm.	98.1	94.4	88.4	98.4	99.6	101.0	10.0	11.2	1.7	-0.8
Std Dv	1.0	1.1	2.0	1.4	2.0	2.0	2.8	1.1	0.1	0.1

700 FT. FLYBY @ 150 KTS INDICATED AIRSPEED

41	97.6	95.0	87.4	97.9	98.0	99.4	13.0	13.5	1.6	-0.7
42	95.2	92.2	84.6	96.1	95.7	96.3	14.0	17.0	0.6	-0.5
Avm.	96.4	93.6	86.0	97.0	96.8	97.8	13.5	15.2	1.1	-0.6
Std Dv	1.7	2.0	2.0	1.2	1.6	2.2	0.7	2.5	0.7	0.2

1000 FT. FLYBY @ 150 KTS INDICATED AIRSPEED

1	92.9	89.9	80.8	93.8	91.4	92.8	17.0	21.5	1.4	-0.6
2	95.1	92.2	83.0	93.7	93.8	95.1	17.5	18.5	1.2	-0.9
3	93.4	90.2	81.2	93.7	91.9	92.9	18.0	23.0	1.2	-0.5
4	95.6	93.1	83.9	93.7	93.9	95.3	17.5	19.0	1.4	-0.9
5	93.5	90.5	80.5	93.4	91.3	92.8	20.0	24.0	1.5	-0.6
6	96.3	93.7	84.4	94.5	95.5	96.9	17.0	16.5	1.1	-0.9
39	95.5	92.9	84.5	94.6	94.4	95.5	18.0	21.0	1.0	-0.8
40	93.9	90.2	81.1	93.9	92.2	93.4	18.5	27.5	1.4	-0.7
Avm.	94.5	91.6	82.4	93.9	93.1	94.3	17.9	21.4	1.3	-0.7
Std Dv	1.3	1.5	1.7	0.4	1.6	1.6	1.0	3.5	0.2	0.1

1500 FT. FLYBY @ 150 KTS INDICATED AIRSPEED

37	-	90.3	80.5	92.2	90.3	91.2	23.0	-	1.0	-
38	90.6	87.5	76.8	92.4	87.6	88.7	25.5	32.0	1.1	-0.6
45	94.1	91.1	80.9	94.5	91.7	92.8	33.5	35.5	1.2	-0.8
46	91.8	88.7	78.3	92.8	89.3	91.0	25.0	26.0	1.8	-0.6
Avm.	92.2	89.4	79.1	93.0	89.7	90.9	26.7	31.2	1.3	-0.6
Std Dv	1.8	1.6	1.9	1.1	1.7	1.7	4.6	4.8	0.3	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
16	91.7	88.2	79.9	87.5	92.2	92.9	15.0	15.5	0.9	-0.4
17	92.2	88.4	80.5	88.4	93.1	93.9	14.5	14.0	0.9	-0.4
18	92.0	88.2	79.5	86.9	91.9	92.8	16.0	16.5	0.9	-0.5
19	91.7	87.9	79.1	87.1	91.4	92.1	15.5	16.5	0.9	-0.3
20	92.4	88.5	80.5	89.4	93.7	94.4	15.0	14.0	0.8	-0.4
21	92.2	88.3	79.9	87.9	92.4	93.2	15.0	15.5	0.9	-0.4
22	92.6	88.6	80.2	89.1	93.3	94.1	15.5	15.0	1.3	-0.4
23	93.0	89.1	81.7	89.7	94.4	95.4	14.0	13.5	1.1	-0.5
24	93.4	89.5	81.0	89.1	93.6	94.8	14.5	14.5	1.2	-0.3
Avg.	92.4	88.5	80.3	88.3	92.9	93.7	15.0	15.0	1.0	-0.4
Std Dv	0.6	0.5	0.8	1.0	1.0	1.1	0.6	1.1	0.2	0.1

TAKEOFF

8	89.6	85.0	75.5	86.7	88.7	90.9	16.5	15.5	2.1	-1.0
9	88.4	84.7	74.0	82.8	86.0	88.3	28.5	22.0	2.4	-0.7
10	88.0	84.2	73.6	83.2	86.0	87.6	23.5	20.0	2.4	-0.7
11	87.6	83.9	72.5	81.6	84.9	86.8	36.0	33.0	2.4	-0.7
12	88.1	84.1	73.8	83.0	85.7	87.9	23.0	22.0	2.4	-0.9
13	89.2	84.8	74.5	84.4	86.7	89.2	20.0	19.0	2.6	-1.1
14	88.4	84.2	73.3	82.4	85.4	87.6	23.0	22.5	2.6	-0.9
15	88.5	84.3	73.9	83.6	86.1	88.4	23.0	22.5	2.5	-0.9
Avg.	88.5	84.4	73.9	83.5	86.2	88.3	24.2	22.1	2.4	-0.9
Std Dv	0.7	0.4	0.9	1.5	1.1	1.2	5.8	5.0	0.1	0.1

500 FT. FLYBY @ 100 KTS INDICATED AIRSPEED

52	90.7	87.9	80.8	87.1	91.7	92.9	11.0	12.5	1.2	-0.9
Avg.	90.7	87.9	80.8	87.1	91.7	92.9	11.0	12.5	1.2	-0.9
Std Dv	-	-	-	-	-	-	-	-	-	-

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 22, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

500 FT. FLYBY @ 115 KTS INDICATED AIRSPEED

27	93.1	90.5	81.4	88.3	92.6	93.2	17.0	20.0	0.6	-0.6
30	93.0	90.7	83.8	89.9	94.6	95.7	12.0	12.0	1.1	-0.8
33	93.6	90.9	82.0	88.6	93.2	94.0	16.5	18.0	0.9	-0.8
36	91.7	89.5	81.6	88.5	92.4	93.4	17.0	17.0	1.1	-0.9
Avg.	92.9	90.4	82.2	88.8	93.2	94.1	15.6	16.7	0.9	-0.8
Std Dv	0.8	0.7	1.1	0.7	1.0	1.1	2.4	3.4	0.2	0.1

500 FT. FLYBY @ 132 KTS INDICATED AIRSPEED

26	95.2	93.0	85.9	94.4	96.4	97.5	9.5	10.0	1.1	-0.9
29	94.5	92.1	84.0	90.6	94.9	95.9	15.5	17.0	1.0	-0.7
32	95.6	93.1	86.4	93.7	97.0	98.0	10.0	11.0	1.0	-0.9
35	93.9	91.5	83.6	90.1	94.5	95.1	14.0	14.5	0.6	-0.7
Avg.	94.8	92.4	85.0	92.2	95.7	96.6	12.2	13.1	0.9	-0.8
Std Dv	0.8	0.8	1.4	2.1	1.2	1.4	3.0	3.2	0.2	0.1

500 FT. FLYBY @ 152 KTS INDICATED AIRSPEED

25	96.2	93.4	85.2	95.2	96.0	97.0	18.0	19.0	1.1	-0.6
28	97.2	94.2	87.0	97.0	98.1	99.5	11.0	11.5	1.4	-0.9
31	96.1	93.5	86.3	94.8	97.4	98.4	10.0	13.5	1.0	-0.6
34	96.9	94.2	85.9	95.3	97.1	98.8	13.5	13.5	1.9	-0.9
Avg.	96.6	93.8	86.1	95.6	97.2	98.4	13.1	14.4	1.3	-0.7
Std Dv	0.5	0.4	0.8	1.0	0.9	1.1	3.6	3.2	0.4	0.2

500 FT. FLYBY @ 165 KTS INDICATED AIRSPEED

49	96.8	93.6	86.7	97.1	97.7	98.5	10.5	15.5	0.9	-0.6
50	97.6	94.3	88.2	97.9	99.4	100.6	9.0	10.5	1.3	-0.6
51	95.9	92.8	85.3	96.2	96.4	97.2	11.0	17.5	0.8	-0.4
Avg.	96.8	93.6	86.7	97.1	97.8	98.7	10.2	14.5	1.0	-0.6
Std Dv	0.8	0.8	1.4	0.8	1.5	1.7	1.0	3.6	0.2	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 22, 1980

EV	EPNL	NEL	D2A(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
43	97.9	94.9	89.2	96.0	100.6	102.5	7.5	9.0	1.9	-0.9
44	96.9	93.4	86.9	95.3	98.2	100.1	9.5	9.5	1.9	-0.9
Avm.	97.4	94.2	88.1	95.7	99.4	101.3	8.5	9.2	1.9	-0.9
Std Dv	0.7	1.0	1.6	0.5	1.7	1.7	1.4	0.4	0.0	0.0
700 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
41	93.9	91.3	83.5	92.7	94.4	95.7	13.0	15.0	1.3	-0.7
42	96.6	93.7	86.4	95.1	96.7	98.2	12.5	13.0	1.5	-0.8
Avm.	95.2	92.5	84.9	93.9	95.6	97.0	12.7	14.0	1.4	-0.7
Std Dv	2.0	1.7	2.0	1.7	1.6	1.8	0.4	1.4	0.2	0.1
1000 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
1	94.6	91.6	83.5	93.8	94.7	95.9	14.0	16.0	1.2	-0.8
2	90.7	88.1	77.9	90.8	89.7	91.1	21.0	19.5	1.4	-0.6
3	94.7	92.1	83.6	92.9	93.9	95.0	17.0	19.5	1.1	-0.8
4	91.4	89.0	79.6	90.1	91.0	91.4	17.5	22.5	1.2	-0.6
5	94.2	91.3	82.3	93.2	93.2	94.7	17.0	17.5	1.6	-0.9
6	91.6	89.3	79.9	90.8	91.1	92.1	17.0	19.0	1.2	-0.4
39	92.4	90.0	80.3	90.9	91.2	92.1	20.0	22.5	1.2	-0.4
40	95.4	93.0	83.9	94.0	94.9	96.1	16.5	16.5	1.1	-1.0
47	91.1	88.4	79.3	90.9	90.5	91.1	18.5	26.0	0.6	-0.5
48	94.4	91.8	82.8	93.2	93.3	94.7	17.0	17.5	1.4	-0.8
Avm.	93.1	90.5	81.3	92.1	92.4	93.4	17.5	19.6	1.2	-0.7
Std Dv	1.8	1.7	2.1	1.5	1.9	2.0	1.9	3.2	0.2	0.2
1500 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
37	-	87.3	76.4	88.4	87.3	88.4	25.5	-	1.1	-
38	91.6	89.0	79.0	90.2	90.6	91.7	22.0	21.5	1.4	-0.7
45	89.0	86.8	76.6	88.4	87.1	88.3	25.5	30.5	1.2	-0.7
46	93.7	90.7	80.4	91.5	92.0	93.1	20.5	31.0	1.1	-0.6
Avm.	91.4	88.5	78.1	89.6	89.2	90.4	23.4	27.7	1.2	-0.7
Std Dv	2.3	1.7	1.9	1.5	2.5	2.4	2.5	5.3	0.1	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.50

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

16	95.1	91.9	83.8	92.0	95.6	97.0	14.0	15.5	1.4	0.1
17	95.8	92.3	84.4	93.2	96.4	97.9	14.0	15.0	1.5	-0.1
18	96.0	92.4	84.1	92.1	96.1	97.7	16.0	16.0	1.8	-0.2
19	95.7	92.2	83.6	91.7	95.5	97.0	15.5	16.5	1.5	0.0
20	96.1	92.7	84.4	93.2	96.6	97.6	14.5	15.0	1.3	0.1
21	95.8	92.3	84.3	92.9	96.4	97.9	14.5	15.0	1.5	0.0
22	95.9	92.5	84.7	92.4	96.6	97.8	14.5	15.0	1.3	0.1
23	97.2	92.7	85.6	93.7	98.8	100.3	12.5	12.5	1.5	-0.1
24	97.5	93.4	85.4	93.9	98.7	99.8	14.0	14.0	1.1	0.1
Avm.	96.1	92.5	84.5	92.8	96.7	98.1	14.4	14.9	1.4	0.1
Std Dv	0.7	0.4	0.7	0.8	1.2	1.2	1.0	1.2	0.2	0.2

TAKEDOFF

8	96.0	91.8	82.5	91.8	94.9	97.4	15.5	14.5	2.5	-0.9
9	91.8	87.7	77.9	88.2	90.6	93.2	18.0	16.0	2.6	-0.7
10	91.7	87.5	77.4	87.9	89.9	92.5	18.0	17.5	2.5	-0.7
11	90.9	87.0	76.4	86.7	88.9	91.4	20.0	18.5	2.5	-0.7
12	91.8	87.6	77.4	88.3	90.7	93.2	19.5	17.0	2.5	-0.7
13	92.5	88.1	78.1	88.9	91.0	93.7	18.5	16.0	2.6	-0.9
14	91.4	87.6	77.4	87.0	89.4	91.9	21.0	19.0	2.5	-0.7
15	91.7	87.6	77.8	88.1	90.4	93.0	19.0	18.0	2.6	-0.8
Avm.	92.2	88.1	78.1	88.4	90.7	93.3	18.7	17.1	2.5	-0.8
Std Dv	1.6	1.5	1.8	1.6	1.8	1.8	1.6	1.5	0.1	0.1

500 FT. FLYBY @ 100 KTS INDICATED AIRSPEED

52	95.4	92.6	85.3	90.8	96.5	97.9	11.0	11.5	1.5	-0.6
Avm.	95.4	92.6	85.3	90.8	96.5	97.9	11.0	11.5	1.5	-0.6
Std Dv	-	-	-	-	-	-	-	-	-	-

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
500 FT. FLYBY @ 115 KTS INDICATED AIRSPEED										
27	97.3	94.7	86.3	90.9	97.4	98.2	14.0	15.0	1.0	-0.4
30	97.4	94.8	88.1	93.3	98.8	100.3	10.5	11.5	1.5	-0.7
33	97.6	95.2	87.3	91.1	97.9	98.9	13.5	15.5	1.0	-0.4
36	95.7	93.4	86.3	91.4	96.4	97.5	11.0	11.5	1.4	-0.6
Avg.	97.0	94.5	87.0	91.7	97.6	98.7	12.2	13.4	1.2	-0.6
Std Dv	0.9	0.8	0.9	1.1	1.0	1.2	1.8	2.2	0.3	0.2

500 FT. FLYBY @ 132 KTS INDICATED AIRSPEED

26	99.0	96.5	89.7	96.0	100.5	101.8	10.0	9.5	1.5	-0.8
29	98.7	96.5	88.9	92.6	99.6	100.3	12.5	14.0	0.9	-0.3
32	99.2	96.7	90.5	95.9	101.2	102.7	10.0	9.5	1.4	-0.7
35	98.4	96.1	88.6	92.2	99.7	100.3	12.5	13.5	0.6	-0.3
Avg.	98.8	96.5	89.4	94.2	100.2	101.3	11.2	11.6	1.1	-0.6
Std Dv	0.4	0.3	0.9	2.1	0.8	1.2	1.4	2.5	0.4	0.3

500 FT. FLYBY @ 152 KTS INDICATED AIRSPEED

25	99.5	97.1	89.9	96.0	100.9	101.7	11.0	13.0	1.0	0.0
28	100.9	98.0	91.5	99.8	102.3	103.5	10.5	11.0	1.3	-0.6
31	100.4	98.1	91.3	96.6	102.5	103.1	9.0	12.0	0.6	-0.2
34	100.2	97.4	89.9	98.2	101.4	103.0	11.5	11.0	1.6	-0.6
Avg.	100.3	97.7	90.7	97.6	101.8	102.8	10.5	11.7	1.1	-0.4
Std Dv	0.6	0.5	0.8	1.7	0.8	0.8	1.1	1.0	0.4	0.3

500 FT. FLYBY @ 165 KTS INDICATED AIRSPEED

49	100.9	98.2	91.8	98.9	102.7	103.4	9.0	12.0	0.7	-0.4
50	101.6	98.5	92.7	101.1	103.5	104.7	9.0	10.0	1.3	-0.5
51	100.1	97.5	90.2	97.6	101.3	102.2	10.0	12.5	0.9	-0.3
Avg.	100.9	98.1	91.6	99.2	102.5	103.4	9.3	11.5	1.0	-0.4
Std Dv	0.7	0.5	1.2	1.8	1.2	1.3	0.6	1.3	0.3	0.1

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
43	94.9	91.9	86.8	92.2	97.9	99.0	6.5	9.0	1.1	-0.6
44	95.5	92.2	86.4	93.5	97.5	99.1	9.0	9.0	1.6	-0.6
Avg.	95.2	92.1	86.6	92.8	97.7	99.1	7.7	9.0	1.4	-0.6
Std Dv	0.4	0.2	0.2	0.9	0.3	0.0	1.8	0.0	0.3	0.0

700 FT. FLYBY @ 150 KTS INDICATED AIRSPEED

41	98.2	96.1	88.6	94.5	99.5	100.0	12.0	13.5	0.7	-0.1
42	100.2	97.7	91.1	97.9	101.2	102.5	12.5	13.0	1.3	-0.5
Avg.	99.2	96.9	89.9	96.2	100.4	101.3	12.2	13.2	1.0	-0.3
Std Dv	1.4	1.1	1.8	2.4	1.3	1.8	0.4	0.4	0.4	0.3

1000 FT. FLYBY @ 150 KTS INDICATED AIRSPEED

1	97.0	94.5	87.1	95.7	97.1	98.4	13.0	15.5	1.3	-0.3
2	93.9	91.7	82.3	92.6	93.2	94.3	17.5	19.5	1.1	0.1
3	97.5	95.4	87.5	95.7	97.2	98.7	15.5	17.0	1.5	-0.4
4	97.6	96.3	86.6	92.9	96.7	97.6	16.5	18.5	1.3	-0.4
5	99.0	96.8	89.4	96.1	99.1	100.7	14.0	15.5	1.6	-0.6
6	98.0	96.6	87.5	93.6	97.2	98.3	14.0	18.0	1.2	-0.2
39	96.6	94.6	85.3	93.0	96.1	97.2	17.5	19.5	1.1	0.1
40	98.9	96.6	87.6	96.6	97.8	98.9	16.5	18.0	1.4	-0.6
47	95.0	93.0	83.7	92.7	94.7	95.3	17.5	19.0	0.6	-0.1
48	97.8	95.3	87.8	96.0	97.7	99.0	14.5	16.5	1.4	-0.5
Avg.	97.1	95.1	86.5	94.5	96.7	97.8	15.6	17.7	1.3	-0.3
Std Dv	1.6	1.7	2.1	1.7	1.7	1.9	1.7	1.5	0.3	0.2

1500 FT. FLYBY @ 150 KTS INDICATED AIRSPEED

37	93.4	91.8	81.2	90.3	92.0	92.7	24.5	25.5	0.6	-0.1
38	95.2	92.8	82.8	92.7	93.7	94.4	21.5	23.0	0.7	-0.7
45	93.4	91.3	81.7	91.0	92.6	93.2	17.5	30.0	0.6	-0.1
46	98.9	97.2	88.6	94.7	98.1	99.6	18.5	19.5	1.5	-0.6
Avg.	95.2	93.3	83.6	92.2	94.1	95.0	20.5	24.5	0.9	-0.4
Std Dv	2.6	2.7	3.4	2.0	2.8	3.2	3.2	4.4	0.4	0.3

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.6

SINORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TBC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

16	91.0	88.4	78.5	87.4	90.4	90.9	20.0	20.5	0.6	-0.5
17	91.7	88.8	80.3	88.2	91.9	93.2	19.5	19.5	1.5	-0.8
18	91.2	88.1	78.4	87.9	90.2	91.2	21.5	21.0	1.0	-0.6
19	92.3	89.6	80.4	88.8	91.8	92.4	18.5	19.5	0.6	-0.4
20	93.0	90.4	81.5	88.9	92.6	94.1	17.0	17.5	1.5	-0.6
21	91.7	89.0	81.0	88.9	92.2	93.4	17.5	17.5	1.2	-0.7
22	93.8	91.3	83.0	90.6	94.1	94.9	18.0	19.5	0.8	-0.5
23	92.1	89.1	81.1	89.4	92.6	93.9	16.0	16.5	1.3	-0.8
24	92.7	89.7	78.4	88.2	90.4	92.4	29.5	27.5	2.1	-0.7

Avg.	92.2	89.4	80.3	88.7	91.8	93.0	19.7	19.9	1.2	-0.6
Std Dv	0.9	1.0	1.6	0.9	1.3	1.3	4.0	3.2	0.5	0.1

TAKEOFF

8	86.3	83.1	72.4	85.2	83.6	85.2	23.0	24.0	1.8	-0.9
9	86.5	83.7	72.2	83.5	83.4	85.0	31.5	31.0	1.9	-0.7
10	86.0	82.9	71.7	83.8	83.1	84.6	25.5	26.0	1.9	-0.8
11	85.9	83.1	72.4	82.3	83.3	85.1	25.0	26.0	1.8	-0.8
12	87.2	84.0	73.3	83.8	85.0	86.1	24.0	25.0	1.8	-0.6
13	-	82.0	70.9	82.4	82.9	84.0	23.0	-	1.1	-
14	84.7	81.8	70.4	81.4	81.6	83.6	25.5	26.0	2.0	-0.8
15	84.9	81.8	71.1	82.4	81.9	83.4	24.5	26.0	1.6	-0.8

Avg.	85.9	82.8	71.8	83.1	83.1	84.6	25.2	26.2	1.7	-0.8
Std Dv	0.9	0.9	1.0	1.2	1.0	0.9	2.7	2.2	0.3	0.1

500 FT. FLYBY @ 100 KTS INDICATED AIRSPEED

52	87.8	85.5	76.4	83.7	86.5	87.8	23.0	28.5	1.4	-1.0
Avg.	87.8	85.5	76.4	83.7	86.5	87.8	23.0	28.5	1.4	-1.0
Std Dv	-	-	-	-	-	-	-	-	-	-

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 22, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

500 FT. FLYBY @ 115 KTS INDICATED AIRSPEED

27	90.1	87.4	77.7	85.0	88.1	90.0	31.0	31.0	1.8	-0.6
30	91.1	88.8	79.1	86.3	90.0	91.9	25.0	21.0	1.9	-0.5
33	90.8	88.2	78.6	86.5	89.0	90.5	20.0	23.0	1.5	-0.6
34	91.5	89.1	80.6	86.9	91.4	93.1	20.0	19.5	1.7	-0.9
Avg.	90.9	88.4	79.0	86.2	89.6	91.4	24.0	23.6	1.7	-0.7
Std Dv	0.6	0.7	1.2	0.8	1.4	1.4	5.2	5.1	0.2	0.1

500 FT. FLYBY @ 132 KTS INDICATED AIRSPEED

26	92.8	90.2	81.8	88.7	92.2	93.6	14.0	21.5	1.5	-0.8
29	93.4	90.4	80.1	90.0	91.5	93.2	20.5	24.5	1.8	-0.8
32	92.3	89.4	80.8	88.7	91.5	93.2	20.0	29.5	1.8	-0.8
35	-	89.6	79.8	89.0	90.5	92.2	20.0	-	1.8	-
Avg.	92.8	89.9	80.6	89.1	91.4	93.1	18.6	25.2	1.7	-0.8
Std Dv	0.6	0.5	0.9	0.6	0.7	0.6	3.1	4.0	0.1	0.0

500 FT. FLYBY @ 152 KTS INDICATED AIRSPEED

25	95.5	91.8	81.3	93.9	93.4	94.8	22.0	21.5	1.4	-0.7
28	94.9	91.9	84.4	94.5	95.1	97.4	14.5	15.0	2.3	-0.6
31	94.2	91.3	81.3	91.2	92.6	94.7	22.5	21.5	2.1	-0.7
34	94.9	92.5	84.2	93.6	94.9	97.1	21.0	16.0	2.2	-0.5
Avg.	94.9	91.9	82.8	93.3	94.0	96.0	20.0	18.5	2.0	-0.6
Std Dv	0.5	0.5	1.8	1.5	1.2	1.4	3.7	3.5	0.4	0.1

500 FT. FLYBY @ 145 KTS INDICATED AIRSPEED

49	-	90.7	82.3	94.5	93.1	95.0	18.0	-	1.9	-
50	94.6	91.6	84.3	93.7	94.5	95.9	12.5	15.5	1.4	-0.5
51	94.2	90.0	81.1	94.1	93.1	94.8	22.0	21.5	1.7	-0.6
Avg.	94.4	90.8	82.6	94.1	93.6	95.2	17.5	18.5	1.7	-0.6
Std Dv	0.3	0.8	1.6	0.4	0.8	0.6	4.8	4.2	0.2	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 22, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
43	94.3	90.4	82.8	93.7	93.8	94.8	16.5	17.0	1.0	-0.4
44	95.0	92.5	84.6	92.8	95.6	97.4	15.0	14.0	1.8	-0.4
Avm.	94.6	91.5	83.7	93.3	94.7	96.1	15.7	15.5	1.4	-0.4
Std Dv	0.5	1.5	1.3	0.7	1.3	1.8	1.1	2.1	0.6	0.0
700 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
41	94.2	90.9	82.2	93.0	93.6	95.3	19.0	18.5	1.7	-0.9
42	92.9	90.4	82.6	91.8	93.1	94.0	15.0	17.5	1.0	-0.7
Avm.	93.6	90.6	82.4	92.4	93.3	94.7	17.0	18.0	1.4	-0.8
Std Dv	0.9	0.3	0.3	0.8	0.4	0.9	2.8	0.7	0.5	0.1
1000 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
1	90.8	88.0	78.3	90.4	89.6	90.6	18.5	23.0	0.9	-0.8
2	91.8	88.7	77.8	90.6	89.4	91.1	24.0	23.0	2.0	-0.9
3	91.4	88.6	78.6	91.6	89.7	90.6	21.0	24.0	0.9	-0.7
4	92.7	90.1	79.5	90.3	90.1	91.3	23.0	23.5	1.2	-0.9
5	91.2	88.7	79.0	91.1	89.8	90.8	21.5	23.5	1.1	-0.9
6	92.8	90.0	79.3	90.8	90.7	92.3	22.0	22.5	1.6	-0.9
39	93.3	90.7	80.5	92.0	91.2	92.3	23.5	26.5	1.1	-0.7
40	90.9	88.3	78.9	89.8	90.0	90.9	21.0	23.5	0.9	-0.7
47	91.6	88.6	78.8	90.3	90.0	91.9	26.5	25.0	2.0	-0.8
48	89.9	87.1	77.5	89.7	88.7	89.8	18.0	24.0	1.1	-0.6
Avm.	91.7	88.9	78.8	90.7	89.9	91.2	21.9	23.8	1.3	-0.8
Std Dv	1.1	1.1	0.9	0.7	0.7	0.8	2.5	1.2	0.4	0.1
1500 FT. FLYBY @ 150 KTS INDICATED AIRSPEED										
37	92.4	90.0	79.0	91.1	89.9	91.0	29.0	29.5	1.2	-1.0
38	-	86.6	76.2	89.6	86.4	87.8	27.5	-	1.4	-
45	92.5	90.3	79.9	90.1	89.9	91.2	31.5	33.0	1.3	-0.9
46	-	87.2	77.7	90.0	87.7	88.4	22.0	-	1.6	-
Avm.	92.5	88.5	78.2	90.2	88.5	89.6	27.5	31.3	1.4	-1.0
Std Dv	0.1	1.9	1.6	0.6	1.7	1.7	4.0	2.5	0.2	0.1

* INDEXES (A,D), ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.2-1.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	93.7	90.7	81.2	91.2	94.3	95.5	24.5	15.0	1.3	-0.7
36	95.3	91.8	85.4	93.9	97.9	98.9	10.5	10.0	0.8	-0.9
40	96.4	93.1	86.3	93.5	97.6	99.1	15.5	16.0	1.7	-1.1
42	95.8	92.6	85.4	93.2	97.0	98.0	14.5	15.0	1.0	-0.9
44	94.4	91.5	84.4	92.5	96.4	96.9	16.0	16.5	0.5	-0.8
54	95.2	91.9	86.8	93.6	98.6	99.8	10.0	12.5	1.2	-1.1
56	96.1	93.1	86.8	93.8	98.6	99.9	10.5	11.0	1.4	-0.7
Avg.	95.3	92.1	85.2	93.1	97.2	98.3	14.5	13.7	1.1	-0.9
Std Dv	0.9	0.9	2.0	0.9	1.5	1.6	5.1	2.5	0.4	0.2
TAKEOFF										
33	88.1	84.6	75.3	79.6	86.7	88.6	18.0	17.5	2.0	-1.6
35	87.9	84.7	76.6	80.1	87.8	89.6	13.5	13.5	2.2	-1.4
37	87.9	84.6	76.0	80.5	87.5	89.7	14.5	13.5	2.2	-1.4
39	-	85.0	76.9	80.2	88.2	89.9	13.0	-	1.7	-
41	88.0	85.0	76.9	80.8	88.3	90.2	14.0	13.5	1.9	-1.4
43	88.0	84.8	76.5	80.4	88.0	89.9	13.5	12.5	2.3	-1.4
53	86.7	83.8	75.3	78.0	86.3	88.1	15.0	14.5	2.3	-1.4
55	85.6	82.7	73.9	77.3	84.7	86.3	16.5	16.5	1.6	-1.3
Avg.	87.5	84.4	75.9	79.6	87.2	89.0	14.7	12.7	2.0	-1.4
Std Dv	0.9	0.8	1.0	1.3	1.2	1.3	1.7	5.4	0.3	0.1

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

500 FT. FLYOVER - TARGET AIRSPEED 93 KTS

21	87.6	85.1	76.0	81.8	87.9	89.0	19.0	17.0	1.1	-0.9
22	89.8	87.3	81.9	88.4	93.4	94.0	9.0	8.5	0.6	-0.9
23	87.8	85.1	76.1	83.0	88.0	89.1	16.0	14.5	1.1	-0.8
24	89.9	87.0	80.9	88.1	92.3	93.1	10.5	11.0	2.2	-1.0

Avg.	88.8	86.1	78.7	85.3	90.4	91.3	13.6	12.7	1.3	-0.9
Std Dev	1.2	1.2	3.1	3.5	2.9	2.6	4.7	3.8	0.7	0.1

500 FT. FLYOVER - TARGET AIRSPEED 109 KTS

29	86.9	84.4	76.1	80.8	88.2	89.2	15.0	13.5	1.1	-0.9
30	85.2	82.7	75.4	81.3	87.2	88.5	10.5	9.5	1.3	-0.9
31	85.9	83.4	75.4	80.2	87.1	88.2	14.5	14.0	1.1	-0.9
32	84.3	81.5	74.3	79.5	86.1	87.4	13.0	12.0	1.3	-1.0

Avg.	85.6	83.0	75.3	80.5	87.2	88.4	13.2	12.2	1.2	-0.9
Std Dev	1.1	1.2	0.8	0.8	0.8	0.8	2.0	2.0	0.1	0.1

500 FT. FLYOVER - TARGET AIRSPEED 124 KTS

49	87.0	84.4	78.6	87.2	90.1	91.2	8.5	8.5	1.2	-0.9
50	87.5	84.9	77.7	84.9	89.4	90.8	12.0	11.0	1.3	-0.9
51	86.0	83.3	76.2	84.9	87.2	88.9	12.5	12.0	1.7	-1.1
52	86.2	83.7	76.8	85.5	88.0	89.3	10.5	10.0	1.2	-0.9

Avg.	86.7	84.1	77.3	85.6	88.7	90.0	10.9	10.4	1.4	-0.9
Std Dev	0.7	0.7	1.0	1.1	1.3	1.1	1.8	1.5	0.2	0.1

500 FT. FLYOVER - TARGET AIRSPEED 140 KTS

17	89.5	86.7	79.7	90.8	91.4	92.0	11.5	12.0	0.7	-0.8
18	88.1	85.4	80.8	93.6	92.6	93.8	6.5	6.0	1.3	-0.7
19	88.7	86.2	79.1	90.6	89.9	91.0	11.0	12.5	1.2	-1.0
20	86.9	84.3	79.1	92.4	90.4	91.6	7.0	7.0	1.2	-0.7

Avg.	88.3	85.7	79.7	91.9	91.0	92.1	9.0	9.4	1.1	-0.8
Std Dev	1.1	1.0	0.8	1.4	1.2	1.2	2.6	3.4	0.3	0.1

500 FT. FLYOVER - TARGET AIRSPEED 155 KTS

25	89.3	86.7	79.9	94.6	92.1	92.9	9.5	9.5	0.8	-0.6
26	90.0	86.9	80.4	98.9	93.1	94.1	8.0	8.0	0.9	-0.8
27	92.3	89.1	83.8	98.9	96.6	97.0	7.5	7.5	0.4	-0.4
28	91.2	88.3	82.8	100.2	95.1	95.8	6.5	6.5	0.8	-0.5

Avg.	90.7	87.8	81.7	98.2	94.2	94.9	7.9	7.9	0.7	-0.6
Std Dev	1.3	1.1	1.9	2.5	2.0	1.8	1.2	1.2	0.2	0.2

TABLE NO. A-2-3.1

SIKORSKY S-76 SPIRIT HELICOPTER

001/TSC

9-25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER - TARGET AIRSPEED 140 KTS

9	91.4	88.6	83.0	94.2	94.8	95.9	7.5	7.5	1.3	-0.7
10	90.3	87.5	83.5	95.9	95.5	96.3	5.5	5.0	1.0	-0.6
15	91.3	88.3	83.8	94.8	95.4	96.8	6.5	6.0	1.2	-1.0
16	91.3	88.3	84.6	95.3	96.7	97.8	5.0	4.5	1.1	-0.6
Avg.	91.1	88.2	83.7	95.0	95.6	96.7	6.1	5.7	1.1	-0.7
Std Dev	0.5	0.5	0.7	0.7	0.8	0.8	1.1	1.3	0.1	0.2

700 FT. FLYOVER - TARGET AIRSPEED 140 KTS

7	86.3	84.1	75.0	87.9	85.6	86.8	20.0	20.5	1.1	-0.9
8	86.9	85.1	77.9	90.3	88.7	90.2	10.0	9.5	1.6	-0.9
13	86.3	84.3	76.4	87.9	86.8	88.1	14.0	14.5	1.2	-0.8
14	86.9	84.8	78.7	90.6	89.4	90.8	9.0	9.0	1.4	-0.7
Avg.	86.6	84.6	77.0	89.2	87.6	89.0	13.2	13.4	1.3	-0.8
Std Dev	0.4	0.4	1.6	1.5	1.7	1.9	5.0	5.4	0.2	0.1

1000 FT. FLYOVER - TARGET AIRSPEED 140 KTS

45	82.8	81.1	72.8	88.4	83.3	84.6	13.5	14.0	1.3	-0.8
46	83.2	81.3	72.5	87.5	82.9	84.2	19.0	22.0	1.3	-0.9
47	83.1	81.4	73.5	88.2	83.5	84.8	13.5	14.0	1.0	-0.7
48	84.3	82.5	74.1	87.6	84.4	85.5	16.0	18.5	1.1	-0.8
1	85.4	83.5	74.2	86.9	85.0	86.0	20.5	21.0	1.0	-0.8
2	84.2	82.3	74.0	90.4	85.1	86.5	13.5	13.0	1.4	-0.6
3	85.0	83.0	74.0	86.6	84.4	85.6	23.0	23.5	1.5	-0.7
4	83.9	82.0	74.3	88.9	84.6	85.8	14.0	14.5	1.2	-0.7
Avg.	84.0	82.1	73.7	88.1	84.2	85.4	16.6	17.6	1.2	-0.8
Std Dev	0.9	0.8	0.7	1.2	0.8	0.8	3.7	4.2	0.2	0.1

1500 FT. FLYOVER - TARGET AIRSPEED 140 KTS

5	81.5	80.2	69.0	85.3	79.2	80.3	33.5	33.0	1.2	-0.6
6	80.8	79.6	71.8	85.7	81.4	82.9	17.0	17.0	1.5	-0.7
11	81.2	79.6	69.8	84.7	80.4	81.1	22.5	27.5	0.7	-0.9
12	80.6	79.0	68.9	85.6	79.5	80.9	19.5	18.0	1.4	-0.8
Avg.	81.0	79.6	69.9	85.3	80.1	81.3	23.1	23.9	1.2	-0.8
Std Dev	0.4	0.5	1.4	0.5	1.0	1.1	7.3	7.7	0.3	0.1

TABLE NO. A.2-4.1

SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
9/26/80

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	96.3	93.1	85.4	93.8	97.5	98.6	14.0	14.0	1.2	-0.8
70	95.7	92.8	84.4	92.2	96.6	97.2	14.0	14.0	0.7	-0.7
Avg.	96.0	93.0	84.9	93.0	97.0	97.9	14.0	14.0	0.9	-0.7
Std Dev	0.4	0.2	0.7	1.1	0.6	1.0	0.0	0.0	0.4	0.1

500 FT. FLYOVER - TARGET AIRSPEED 93 KTS

61	88.0	85.4	78.0	84.0	89.9	91.4	15.0	12.0	1.6	-0.8
62	90.0	87.1	79.4	84.4	91.2	92.5	12.5	12.0	1.3	-0.9
63	88.4	85.4	77.6	83.8	89.7	91.3	12.0	11.5	1.6	-0.9
64	89.4	86.9	78.8	86.0	90.6	91.9	21.0	14.5	1.3	-0.7
Avg.	89.0	86.2	78.5	84.6	90.3	91.8	15.1	12.5	1.4	-0.8
Std Dev	0.9	0.9	0.8	1.0	0.7	0.5	4.1	1.4	0.2	0.1

500 FT. FLYOVER - TARGET AIRSPEED 140 KTS

57	89.6	87.0	81.8	92.7	92.8	94.4	7.5	7.5	1.6	-0.9
58	91.9	89.3	83.0	92.6	94.4	96.1	9.0	8.5	1.7	-1.1
59	91.2	88.6	83.6	93.4	94.5	96.1	6.5	6.5	1.6	-1.0
60	91.0	88.6	82.6	92.5	93.2	94.7	9.0	9.5	1.5	-1.1
Avg.	90.9	88.4	82.8	92.8	93.7	95.3	8.0	8.0	1.6	-1.0
Std Dev	1.0	1.0	0.7	0.4	0.9	0.9	1.2	1.3	0.1	0.1

500 FT. FLYOVER - TARGET AIRSPEED 155 KTS

65	-	84.4	81.3	95.1	93.0	94.3	4.0	-	1.4	-
66	93.1	89.5	83.7	97.8	96.1	97.3	9.5	10.0	1.2	-0.7
67	91.7	88.5	83.3	97.6	95.1	96.0	6.5	8.5	0.9	-0.7
68	91.8	88.5	82.8	97.5	94.7	96.1	8.0	8.5	1.4	-0.7
Avg.	92.2	87.7	82.8	97.0	94.7	95.9	7.0	6.7	1.2	-0.7
Std Dev	0.8	2.3	1.1	1.3	1.3	1.2	2.3	4.6	0.2	0.0

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.2-1.1G
SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	96.6	93.6	85.1	93.9	97.2	98.2	15.5	15.0	1.0	-0.4
36	98.5	95.5	88.6	96.6	100.5	101.7	11.5	11.0	1.1	-0.6
40	99.0	96.4	89.2	96.5	100.2	101.5	14.0	14.5	1.2	-0.6
42	98.7	96.1	88.8	95.9	99.7	100.7	14.0	14.0	1.0	-0.4
44	97.5	94.9	88.4	96.1	99.8	100.4	11.5	12.5	0.6	-0.3
54	99.6	97.3	90.9	97.1	102.4	102.7	14.0	15.0	0.4	-0.4
56	98.7	96.6	90.4	97.0	101.3	101.7	10.0	11.5	0.4	-0.2
Avg.	98.4	95.8	88.8	96.1	100.2	101.0	12.9	13.4	0.8	-0.4
Std Dev	1.0	1.2	1.9	1.1	1.6	1.4	1.9	1.7	0.4	0.2
TAKEOFF										
33	91.3	88.2	78.5	84.3	89.7	91.7	17.5	18.0	2.0	-1.3
35	91.1	88.4	80.2	85.0	91.0	92.3	14.0	15.0	1.3	-1.0
37	91.1	88.2	79.5	84.9	90.4	92.3	14.0	14.5	1.9	-1.2
39	-	88.8	80.4	84.6	91.2	93.1	13.5	-	1.9	-
41	91.2	88.6	80.6	84.9	91.3	93.4	14.0	14.5	2.1	-1.2
43	91.2	88.5	80.5	84.7	91.0	92.9	13.5	15.0	1.9	-1.1
53	90.0	87.5	79.0	82.7	89.4	91.1	14.5	15.5	1.7	-0.9
55	89.2	86.7	77.8	82.0	88.0	89.9	16.5	17.0	1.9	-1.0
Avg.	90.7	88.1	79.6	84.1	90.2	92.1	14.7	13.7	1.8	-1.1
Std Dev	0.8	0.7	1.1	1.1	1.2	1.2	1.5	5.7	0.2	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.1G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

21	91.5	89.2	79.7	84.4	91.6	92.4	19.0	18.0	0.8	-0.2
22	92.9	90.3	84.9	90.5	96.4	97.0	9.0	9.5	0.6	-0.5
23	91.4	88.9	79.9	85.8	91.9	92.8	17.0	15.5	0.9	-0.4
24	93.4	90.7	84.7	91.2	96.0	97.3	11.0	10.5	1.2	-0.6
Avg.	92.3	89.8	82.3	88.4	94.0	94.9	14.0	13.4	0.9	-0.4
Std Dv	1.0	0.9	2.9	2.8	2.6	2.6	4.8	4.0	0.3	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

29	90.7	88.0	79.9	84.6	91.7	92.9	14.0	13.0	1.1	-0.4
30	89.3	86.8	79.7	85.0	91.4	92.9	10.0	9.5	1.4	-0.7
31	89.8	87.2	79.1	83.9	90.7	91.8	14.5	13.5	1.1	-0.6
32	88.0	85.5	78.4	83.4	90.1	91.6	11.5	10.0	1.4	-0.4
Avg.	89.4	86.9	79.3	84.2	91.0	92.3	12.5	11.5	1.3	-0.5
Std Dv	1.1	1.1	0.7	0.7	0.7	0.7	2.1	2.0	0.2	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

49	90.4	88.0	82.3	89.4	93.7	94.8	8.5	8.5	1.1	-0.6
50	91.0	88.5	81.9	88.3	93.0	94.3	11.0	11.0	1.3	-0.8
51	89.6	87.2	80.9	87.4	91.5	92.9	10.5	11.5	1.4	-0.8
52	89.6	87.2	80.1	87.7	91.3	92.6	11.0	11.0	1.2	-0.6
Avg.	90.1	87.7	81.3	88.2	92.4	93.6	10.2	10.5	1.3	-0.7
Std Dv	0.7	0.7	1.0	0.9	1.1	1.1	1.2	1.4	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

17	93.5	90.8	83.4	92.6	95.0	95.8	11.0	12.0	1.3	-0.4
18	92.6	89.8	84.8	96.1	96.7	97.9	6.5	6.5	1.2	-0.5
19	92.8	90.4	83.7	92.3	94.5	95.8	10.5	11.0	1.4	-0.5
20	91.2	88.9	83.9	94.4	95.2	96.6	7.0	6.5	1.4	-0.5
Avg.	92.5	90.0	84.0	93.8	95.4	96.5	8.7	9.0	1.3	-0.5
Std Dv	0.9	0.8	0.6	1.8	0.9	1.0	2.3	2.9	0.1	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

25	93.5	90.7	84.1	96.2	95.8	96.7	9.0	9.5	1.0	-0.3
26	94.4	91.5	85.1	100.6	97.4	98.5	7.5	8.0	1.0	-0.3
27	96.3	93.1	87.3	101.0	99.9	100.5	8.5	8.5	0.6	-0.2
28	95.6	92.7	87.1	101.9	99.5	100.2	6.5	7.0	0.9	-0.3
Avg.	94.9	92.0	85.9	99.9	98.1	99.0	7.9	8.2	0.9	-0.3
Std Dv	1.3	1.1	1.5	2.5	1.9	1.8	1.1	1.0	0.2	0.1

TABLE NO. A.2-3.10

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE-CENTER (FLUSH)

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

9	95.9	93.0	87.5	95.9	99.3	100.7	8.0	7.5	1.6	-0.6
10	94.5	91.6	87.8	97.4	99.6	100.5	5.0	5.5	0.9	-0.5
15	95.6	92.7	88.1	96.6	99.9	101.3	7.0	6.0	1.4	-0.5
16				NO DATA						
Avg.	95.4	92.4	87.8	96.6	99.6	100.8	6.7	6.3	1.3	-0.5
Std Dv	0.7	0.7	0.3	0.7	0.3	0.4	1.5	1.0	0.4	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

7	90.2	88.1	79.7	89.2	90.5	91.8	16.5	14.5	1.4	-0.4
8	91.5	89.7	82.8	92.1	94.3	95.6	9.0	9.0	1.3	-0.5
13	90.6	88.5	80.6	89.7	91.2	92.6	14.0	13.5	1.5	-0.4
14	90.7	88.8	82.3	92.7	93.5	94.6	9.0	9.0	1.1	-0.3
Avg.	90.8	88.8	81.4	90.9	92.4	93.7	12.1	11.5	1.3	-0.4
Std Dv	0.6	0.7	1.4	1.7	1.8	1.7	3.7	2.9	0.1	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

45	86.5	85.0	77.0	89.9	87.2	88.7	12.5	13.0	1.6	-0.4
46	86.6	85.1	75.5	87.7	85.6	86.9	20.0	21.0	1.3	-0.4
47	86.8	85.2	77.9	89.9	88.1	89.5	13.0	13.0	1.5	-0.4
48	87.5	85.9	77.2	88.9	87.7	89.0	16.0	16.0	1.3	-0.5
1	89.3	87.3	77.9	88.3	88.8	90.0	19.0	19.0	1.5	-0.4
2	88.6	86.9	79.5	91.5	90.0	91.2	12.0	12.0	1.2	-0.4
3	88.7	86.6	78.1	88.3	88.9	90.0	16.5	16.5	1.1	-0.4
4	88.1	86.5	78.5	90.2	89.1	90.2	13.5	13.5	1.1	-0.4
Avg.	87.8	86.0	77.7	89.3	88.2	89.4	15.3	15.5	1.3	-0.4
Std Dv	1.0	0.9	1.2	1.3	1.4	1.3	3.0	3.2	0.2	0.0

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	85.3	83.8	73.1	86.7	83.2	84.5	26.0	25.5	1.2	-0.4
6	85.3	83.9	76.0	87.5	86.6	88.0	17.5	16.5	1.4	-0.4
11	85.2	83.6	74.3	86.3	84.5	85.3	19.5	22.5	1.0	-0.3
12	84.9	83.5	74.1	87.4	84.2	85.9	16.5	16.5	1.6	-0.4
Avg.	85.2	83.7	74.4	87.0	84.6	85.9	19.9	20.2	1.3	-0.4
Std Dv	0.2	0.2	1.2	0.6	1.4	1.5	4.3	4.5	0.3	0.0

TABLE NO. A.2-4.10

SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
10/ 2/80

AS MEASURED *

SITE: 10

CENTERLINE-CENTER (FLUSH)

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	99.2	96.5	89.1	96.8	101.0	101.9	13.0	12.5	0.9	-0.3
70	99.1	96.5	88.7	95.8	100.4	101.3	13.5	13.5	0.9	-0.5
Avm.	99.2	96.5	88.9	96.3	100.7	101.6	13.2	13.0	0.9	-0.4
Std Dv	0.1	0.1	0.3	0.7	0.4	0.4	0.4	0.7	0.0	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

61	90.9	88.7	81.3	87.3	92.7	94.1	14.5	12.5	1.4	-0.4
62	92.7	90.1	82.0	87.7	93.1	94.1	14.0	14.0	1.1	-0.4
63	90.9	88.8	81.0	87.1	92.0	93.6	12.5	12.0	1.5	-0.5
64	92.3	89.8	82.1	88.6	93.2	94.3	15.5	15.0	1.1	-0.4
Avm.	91.7	89.4	81.6	87.7	92.8	94.0	14.1	13.4	1.3	-0.4
Std Dv	0.9	0.7	0.5	0.6	0.5	0.3	1.2	1.4	0.2	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

57	92.5	90.4	85.2	94.9	96.1	97.4	7.5	8.0	1.3	-0.6
58	95.0	92.5	86.6	94.9	97.9	98.8	8.5	9.0	1.0	-0.7
59	94.2	92.1	87.0	95.7	97.6	98.6	6.5	7.5	1.1	-0.5
60	93.1	91.1	84.9	94.4	95.4	96.5	10.0	10.5	1.1	-0.6
Avm.	93.7	91.5	85.9	95.0	96.7	97.8	8.1	8.7	1.1	-0.6
Std Dv	1.1	1.0	1.0	0.6	1.2	1.1	1.5	1.3	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

65	94.9	92.2	86.6	98.5	97.9	98.8	8.0	8.5	1.2	-0.4
66	96.6	93.6	88.2	99.6	100.1	101.1	9.5	9.5	0.9	-0.3
67	95.4	92.8	88.1	99.3	99.5	100.3	6.0	7.5	1.6	-0.4
68	95.1	92.1	86.7	99.4	98.4	99.4	8.0	9.0	1.0	-0.4
Avm.	95.5	92.7	87.4	99.2	99.0	99.9	7.9	8.6	1.2	-0.4
Std Dv	0.8	0.7	0.8	0.5	1.0	1.0	1.4	0.9	0.3	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	93.8	90.5	81.1	91.4	94.5	95.5	21.0	14.5	1.0	-0.4
36	95.8	92.0	85.7	94.2	98.2	99.5	10.0	9.5	1.3	-0.9
40	90.1	87.4	80.3	84.5	91.2	92.9	14.0	13.5	1.8	-1.2
42	96.2	92.9	85.8	93.7	97.7	98.9	14.5	13.5	1.2	-0.6
44	94.8	91.7	85.0	92.6	97.0	97.3	13.5	14.0	0.3	-0.6
54	94.2	91.7	86.1	93.6	97.6	98.3	12.5	12.5	1.0	-0.7
56	95.9	93.4	87.3	94.3	98.9	99.3	10.0	11.5	0.4	-0.4
Avg.	94.4	91.4	84.5	92.0	96.4	97.4	13.6	12.7	1.0	-0.7
Std Dv	2.1	2.0	2.7	3.5	2.7	2.4	3.7	1.7	0.5	0.3
TAKEOFF										
33	88.1	84.2	74.6	81.4	87.2	89.4	16.5	16.0	2.2	-1.5
35	88.0	84.7	76.3	81.2	87.9	89.9	14.0	13.5	2.0	-1.3
37	88.1	84.4	75.7	81.8	87.7	89.8	14.0	13.5	2.1	-1.5
39	-	85.1	77.5	81.8	89.2	91.3	13.0	-	2.1	-
41	88.1	84.7	77.2	82.0	88.8	90.8	12.5	13.0	2.0	-1.4
43	88.0	84.6	76.8	81.9	88.4	90.4	12.5	12.5	2.1	-1.3
53	87.7	84.6	76.1	79.8	87.5	89.4	16.0	16.0	1.9	-1.2
55	87.1	84.0	74.9	79.6	87.0	89.0	22.5	15.5	2.1	-1.3
Avg.	87.9	84.5	76.1	81.2	88.0	90.0	15.1	12.5	2.1	-1.4
Std Dv	0.4	0.3	1.0	0.9	0.8	0.8	3.3	5.2	0.1	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H		CENTERLINE-CENTER (10-METER)							JUNE 23, 1980	
EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS										
21	88.1	85.6	76.2	84.1	88.7	89.4	19.5	17.5	0.7	-0.6
22	90.1	87.6	82.2	88.4	93.8	94.2	9.0	9.0	0.9	-0.5
23	88.1	85.2	76.5	83.5	89.3	90.5	16.0	13.5	1.2	-0.6
24	89.9	87.2	81.2	88.7	93.0	93.4	10.5	11.0	0.4	-0.7
Avg.	89.1	86.4	79.0	86.2	91.2	91.8	13.7	12.7	0.8	-0.6
Std Dv	1.1	1.2	3.1	2.8	2.6	2.3	4.9	3.7	0.3	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS										
29	87.1	84.2	75.8	81.2	88.5	89.6	14.0	12.0	1.1	-0.7
30	86.1	83.0	76.0	83.2	88.3	89.8	10.5	9.0	1.5	-1.1
31	86.8	84.0	75.8	82.3	88.1	89.2	14.5	13.0	1.1	-0.8
32	84.7	81.4	74.6	85.2	87.2	88.4	12.0	10.0	1.2	-0.7
Avg.	86.2	83.1	75.5	83.0	88.0	89.2	12.7	11.0	1.2	-0.8
Std Dv	1.1	1.2	0.7	1.7	0.6	0.6	1.8	1.8	0.2	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS										
49	88.0	85.0	79.6	87.6	91.9	93.1	7.5	6.5	1.2	-0.8
50	88.2	85.2	77.9	86.0	90.5	92.0	11.0	9.5	1.5	-0.8
51	86.6	83.8	76.9	85.3	88.7	90.4	12.0	10.5	1.7	-1.0
52	87.0	84.0	76.7	86.0	88.8	90.1	10.0	10.0	1.3	-0.9
Avg.	87.5	84.5	77.8	86.2	90.0	91.4	10.1	9.1	1.4	-0.9
Std Dv	0.8	0.7	1.3	1.0	1.5	1.4	1.9	1.8	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
17	90.3	87.0	79.9	90.9	92.0	93.0	11.0	12.0	1.0	-0.6
18	88.7	85.7	81.1	93.8	93.4	94.3	6.5	6.0	1.2	-0.4
19	89.2	86.7	79.6	90.5	90.9	92.1	11.0	11.0	1.1	-0.6
20	87.7	84.8	79.8	92.7	91.8	93.0	7.0	6.5	1.2	-0.5
Avg.	89.0	86.1	80.1	92.0	92.0	93.1	8.9	8.9	1.1	-0.5
Std Dv	1.1	1.0	0.7	1.5	1.0	0.9	2.5	3.1	0.1	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS										
25	89.9	87.0	80.3	94.2	92.6	93.6	9.0	9.0	0.9	-0.4
26	90.4	87.0	81.1	98.9	94.2	95.1	7.5	7.5	1.0	-0.5
27	91.9	88.4	83.1	98.2	96.3	97.0	7.5	7.0	0.7	-0.2
28	92.1	88.3	82.9	101.4	96.5	97.4	7.0	6.5	0.9	-0.4
Avg.	91.1	87.6	81.8	98.2	94.9	95.8	7.7	7.5	0.9	-0.4
Std Dv	1.1	0.8	1.3	3.0	1.8	1.8	0.9	1.1	0.1	0.1

TABLE NO. A.2-3.1H
SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA
AS MEASURED *

DOT/TSC
10/ 2/80

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 23,1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
9	91.6	88.4	83.1	92.7	95.4	96.5	7.0	7.0	1.1	-0.6
10	91.7	88.1	84.3	96.1	97.0	97.9	5.0	5.0	1.0	-0.6
15	92.3	88.8	84.0	95.4	96.6	98.0	6.5	5.5	1.4	-0.7
16				NO DATA						
Avg.	91.9	88.4	83.8	94.7	96.3	97.5	6.2	5.8	1.1	-0.6
Std Dv	0.3	0.3	0.6	1.8	0.8	0.9	1.0	1.0	0.2	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
7	85.8	83.3	74.0	86.2	85.1	86.3	16.0	16.5	1.3	-0.6
8	86.2	83.8	77.2	89.4	88.1	88.9	10.5	11.0	0.9	-0.7
13	87.2	84.9	76.1	89.7	87.5	88.5	15.5	17.0	1.0	-0.5
14	87.6	85.1	79.2	92.0	90.7	91.6	8.5	9.0	1.1	-0.5
Avg.	86.7	84.3	76.6	89.3	87.8	88.8	12.6	13.4	1.1	-0.6
Std Dv	0.8	0.8	2.2	2.4	2.3	2.2	3.7	4.0	0.2	0.1
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
45	82.7	80.9	72.8	88.3	83.7	84.8	13.5	13.5	1.4	-0.5
46	83.4	81.6	72.1	87.5	83.2	84.7	19.0	16.5	1.5	-0.7
47	84.1	82.1	74.6	88.8	85.3	86.8	13.5	13.0	1.5	-0.6
48	84.6	82.9	74.2	88.0	85.1	86.3	15.5	15.0	1.3	-0.6
1	83.4	81.1	71.6	84.2	83.2	84.4	19.0	19.0	1.2	-0.7
2	82.6	80.3	72.6	87.8	83.8	85.4	12.0	11.5	1.6	-0.4
3	83.1	80.6	71.7	84.2	83.7	84.9	16.5	19.0	1.2	-0.4
4	82.6	80.3	72.0	86.5	82.9	84.2	14.0	14.5	1.3	-0.5
Avg.	83.3	81.2	72.7	86.9	83.8	85.2	15.4	15.2	1.4	-0.5
Std Dv	0.7	0.9	1.1	1.8	0.9	0.9	2.6	2.7	0.1	0.1
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
5	80.5	78.9	67.8	83.7	78.1	79.3	29.5	31.5	1.3	-0.6
6	-	78.1	69.9	84.2	80.0	81.5	17.5	-	1.5	-
11	81.7	79.8	69.8	85.4	80.4	81.2	23.5	32.0	1.5	-0.9
12	81.2	79.6	69.6	87.1	80.1	81.8	18.0	17.5	1.7	-0.6
Avg.	81.1	79.1	69.3	85.1	79.7	81.0	22.1	20.2	1.5	-0.7
Std Dv	0.6	0.8	1.0	1.5	1.0	1.1	5.6	15.1	0.1	0.2

TABLE NO. A.2-4.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	94.6	91.3	83.8	91.6	96.8	97.4	13.0	12.5	0.7	-0.5
70	93.7	90.7	82.8	90.1	95.2	95.6	13.5	13.5	0.6	-0.6
Avg.	94.2	91.0	83.3	90.9	96.0	96.5	13.2	13.0	0.6	-0.5
Std Dv	0.6	0.4	0.7	1.0	1.1	1.3	0.4	0.7	0.0	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

61	87.9	85.2	77.8	84.9	90.1	91.3	15.0	11.5	1.2	-0.6
62	87.8	84.9	77.2	80.5	88.6	90.5	12.5	11.5	1.8	-1.1
63	88.3	85.4	77.7	84.7	89.9	91.4	12.0	11.0	1.5	-0.6
64	89.4	86.6	78.9	86.1	90.7	91.8	15.0	15.0	1.1	-0.5
Avg.	88.3	85.6	77.9	84.1	89.8	91.2	13.6	12.2	1.4	-0.7
Std Dv	0.7	0.7	0.7	2.4	0.9	0.6	1.6	1.8	0.3	0.3

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

57	89.7	87.1	82.0	93.0	93.2	94.5	7.5	7.5	1.2	-0.7
58	91.7	89.0	82.9	92.6	94.7	95.9	8.5	8.0	1.3	-0.7
59	91.1	88.5	83.7	93.7	95.4	96.6	6.5	6.5	1.2	-0.6
60	91.2	88.4	82.1	94.2	93.7	95.1	9.5	9.5	1.4	-0.7
Avg.	90.9	88.2	82.7	93.4	94.3	95.5	8.0	7.9	1.3	-0.7
Std Dv	0.9	0.8	0.8	0.7	1.0	0.9	1.3	1.2	0.1	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

65	ND DATA									
66	94.3	90.3	84.3	100.0	96.9	97.9	10.0	10.5	1.0	-0.6
67	92.1	88.8	83.4	99.0	95.7	96.8	7.0	7.5	1.1	-0.5
68	91.2	87.8	82.2	96.4	94.8	96.0	8.0	8.0	1.2	-0.5
Avg.	92.6	89.0	83.3	98.7	95.8	96.9	8.3	8.7	1.1	-0.5
Std Dv	1.6	1.3	1.1	2.2	1.0	0.9	1.5	1.6	0.1	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
11/28/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	96.5	93.2	86.4	94.6	98.4	99.2	11.5	11.5	0.7	-0.6
36	98.8	95.4	90.0	96.7	101.6	103.6	9.0	9.0	1.9	-1.3
40	97.7	94.4	88.9	96.3	100.3	101.3	10.5	11.0	1.0	-0.9
42	97.4	94.1	88.8	96.1	100.3	101.7	9.0	9.0	1.4	-0.9
44	97.4	93.9	87.2	95.2	99.4	100.5	9.5	9.5	1.4	-1.0
54	97.7	94.8	88.6	96.0	100.1	101.5	11.5	11.5	1.4	-0.8
56	96.9	94.0	88.9	96.3	100.8	102.1	8.5	8.0	1.3	-0.8
Avg.	97.5	94.3	88.4	95.9	100.1	101.4	9.9	9.9	1.3	-0.9
Std Dv	0.7	0.7	1.2	0.7	1.0	1.4	1.2	1.4	0.4	0.2
TAKEOFF										
33	-	87.0	79.2	82.9	90.9	92.4	10.0	-	1.6	-
35	89.7	86.6	80.0	82.4	91.3	92.8	11.0	11.0	1.5	-1.3
37	90.0	86.5	79.1	82.7	90.8	92.6	11.5	11.0	1.8	-1.4
39	89.9	86.7	79.6	81.9	90.8	92.6	12.0	11.5	1.8	-1.3
41	89.7	86.6	79.9	82.5	90.7	92.4	11.5	11.0	1.7	-1.3
43	89.5	86.4	79.2	82.4	90.0	91.7	12.0	12.0	1.8	-1.4
53	89.4	86.5	79.8	81.7	91.2	92.4	11.0	11.5	1.2	-1.2
55	88.9	85.8	77.3	81.4	88.7	90.4	14.0	14.0	1.6	-1.2
Avg.	89.6	86.5	79.3	82.2	90.6	92.2	11.6	10.2	1.6	-1.3
Std Dv	0.4	0.3	0.9	0.5	0.8	0.8	1.2	4.3	0.2	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
11/28/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

21	88.8	86.1	77.1	82.4	89.2	90.6	19.5	17.0	1.4	-0.9
22	91.4	88.8	84.2	91.4	95.8	96.4	7.5	8.0	0.6	-0.9
23	89.2	86.3	76.9	83.0	89.4	90.2	18.0	17.0	1.1	-0.9
24	91.5	88.7	83.3	90.7	95.1	95.8	10.0	10.5	0.6	-0.6
Avg.	90.2	87.5	80.4	86.9	92.4	93.2	13.7	13.1	0.9	-0.9
Std Dev	1.4	1.5	3.9	4.8	3.6	3.3	5.9	4.6	0.4	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

29	87.5	84.9	77.2	81.7	89.4	90.5	13.5	12.0	1.1	-0.8
30	86.0	83.3	76.9	82.1	88.6	89.9	9.5	9.0	1.2	-1.1
31	87.1	84.6	77.3	81.7	89.1	90.3	12.5	11.5	1.1	-0.8
32	85.1	82.4	74.6	79.8	86.6	87.6	12.0	12.0	1.0	-0.9
Avg.	86.5	83.8	76.5	81.3	88.4	89.6	11.9	11.1	1.1	-0.9
Std Dev	1.1	1.2	1.3	1.0	1.3	1.4	1.7	1.4	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

49	-	84.9	78.9	87.7	90.7	91.9	8.5	-	1.2	-
50	89.6	86.6	80.3	86.7	92.2	93.6	9.5	8.5	1.4	-1.0
51	87.3	84.5	77.5	85.7	89.1	90.6	11.5	10.5	1.5	-1.1
52	87.3	84.6	77.5	85.9	89.2	90.4	11.0	10.5	1.3	-0.9
Avg.	88.1	85.2	78.6	86.5	90.3	91.7	10.1	7.4	1.4	-1.0
Std Dev	1.3	1.0	1.3	0.9	1.5	1.5	1.4	5.0	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

17	90.6	87.8	81.4	91.9	93.4	94.3	10.0	10.0	0.9	-0.7
18	89.7	86.9	82.1	94.9	93.8	95.3	6.5	6.5	1.5	-0.7
19	-	87.0	80.6	92.1	91.9	93.1	10.0	-	1.2	-
20	-	85.8	80.6	94.3	91.9	93.5	6.5	-	1.6	-
Avg.	90.2	86.9	81.2	93.3	92.7	94.0	8.2	4.1	1.3	-0.7
Std Dev	0.7	0.8	0.8	1.5	1.0	1.0	2.0	5.0	0.3	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

25	90.7	87.7	81.5	96.5	93.6	94.5	9.0	9.5	0.9	-0.7
26	91.4	88.4	82.2	100.2	94.7	95.6	7.5	7.5	0.9	-0.6
27	93.3	90.0	84.4	100.5	97.3	97.7	8.0	8.5	0.5	-0.4
28	92.1	88.8	83.0	101.0	95.9	97.0	7.0	6.5	1.1	-0.6
Avg.	91.9	88.7	82.8	99.6	95.4	96.2	7.9	8.0	0.8	-0.6
Std Dev	1.1	1.0	1.3	2.1	1.6	1.4	0.9	1.3	0.3	0.1

TABLE NO. A.2-3.2
SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 23, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / \ **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

9	92.8	89.6	84.7	95.2	96.9	98.1	6.0	5.5	1.2	-0.9
10	91.3	87.9	83.9	95.2	96.7	97.3	5.5	5.0	0.6	-0.7
15	92.6	89.5	85.1	95.1	97.3	98.3	6.5	6.0	1.0	-0.8
16	92.9	89.6	85.9	96.1	98.5	99.6	5.0	4.5	1.1	-0.6
Avs.	92.4	89.2	84.9	95.4	97.3	98.3	5.7	5.2	1.0	-0.8
Std Dv	0.7	0.8	0.8	0.5	0.8	0.9	0.6	0.6	0.3	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

7	86.4	84.3	75.1	87.6	86.2	87.2	18.0	18.5	1.1	-0.8
8	86.5	84.4	76.9	90.2	88.2	89.4	10.5	10.0	1.4	-1.0
13	87.5	85.4	77.7	88.6	88.7	89.7	14.0	14.5	1.1	-0.7
14	87.6	85.2	78.8	91.3	89.8	91.3	9.0	9.0	1.5	-0.7
Avs.	87.0	84.8	77.1	89.4	88.2	89.4	12.9	13.0	1.3	-0.8
Std Dv	0.6	0.6	1.5	1.6	1.5	1.7	4.0	4.4	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

45	83.6	81.7	72.9	88.8	83.3	84.7	14.5	15.0	1.8	-0.9
46	83.4	81.6	72.8	88.0	83.4	84.7	17.5	17.5	1.3	-0.7
47	83.9	82.2	73.6	88.8	84.3	85.2	14.5	15.0	1.0	-0.6
48	84.2	82.8	75.0	87.8	84.9	86.1	15.5	16.0	1.2	-0.5
1	85.8	83.8	74.4	87.3	85.9	86.8	17.5	21.0	0.9	-0.7
2	85.1	83.1	75.4	90.9	86.3	87.3	13.0	13.0	1.2	-0.6
3	85.4	83.5	74.7	87.1	85.8	87.1	24.0	23.0	1.3	-0.4
4	84.7	83.0	74.9	89.9	85.6	87.0	13.0	12.0	1.4	-0.8
Avs.	84.5	82.7	74.2	88.6	84.9	86.1	16.2	16.6	1.3	-0.6
Std Dv	0.9	0.8	1.0	1.3	1.1	1.1	3.6	3.8	0.3	0.1

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	82.0	80.4	70.1	85.4	80.1	81.3	24.0	27.0	1.3	-0.6
6	81.0	79.5	69.7	85.7	79.5	80.6	23.5	24.0	1.2	-0.7
11	81.7	80.6	70.9	85.1	81.2	82.1	33.0	21.0	1.2	-0.7
12	81.1	79.6	70.4	85.7	80.2	81.6	17.0	18.0	1.4	-0.8
Avs.	81.4	80.0	70.2	85.5	80.2	81.4	24.4	22.5	1.3	-0.7
Std Dv	0.5	0.5	0.5	0.3	0.7	0.6	6.6	3.9	0.1	0.1

TABLE NO. A.2-4.2

SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
11/28/80

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	96.2	93.3	87.8	95.3	99.6	100.4	9.5	10.0	0.8	-0.6
70	95.3	92.4	84.8	93.4	97.0	97.7	14.0	13.5	0.6	-0.6
Avg.	95.8	92.8	86.3	94.3	98.3	99.0	11.7	11.7	0.7	-0.6
Std Dev	0.7	0.6	2.2	1.4	1.8	2.0	3.2	2.5	0.1	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

61	88.1	85.3	75.9	83.1	87.7	89.2	17.0	16.5	1.5	-1.1
62	89.8	87.0	79.6	84.9	91.1	92.3	14.0	13.0	1.4	-0.9
63	87.1	84.7	76.4	83.3	87.8	88.9	32.5	13.5	1.3	-0.8
64	89.7	86.6	79.7	86.7	91.6	92.5	12.0	11.5	0.8	-1.0
Avg.	88.7	85.9	77.9	84.5	89.5	90.7	18.9	13.6	1.3	-0.9
Std Dev	1.3	1.1	2.0	1.7	2.1	1.9	9.3	2.1	0.3	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

57	89.9	87.1	82.0	94.1	92.9	94.5	7.5	9.5	1.6	-1.0
58	92.1	89.3	82.8	93.2	94.3	95.8	10.0	9.5	1.4	-1.0
59	90.9	88.1	83.1	93.3	94.6	96.2	7.0	7.0	1.6	-1.0
60	90.4	87.9	81.5	92.7	92.5	94.2	10.0	10.0	1.6	-1.0
Avg.	90.8	88.1	82.4	93.3	93.6	95.2	8.6	9.0	1.6	-1.0
Std Dev	0.9	0.9	0.7	0.6	1.0	1.0	1.6	1.4	0.1	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

65	92.7	89.7	85.3	97.9	97.3	98.0	7.0	7.5	0.6	-0.7
66	93.0	89.3	84.1	98.5	96.2	97.3	8.0	9.5	1.1	-0.5
67	93.0	89.4	85.0	98.2	97.0	98.2	7.0	9.0	1.2	-0.7
68	-	88.3	82.6	97.8	94.4	95.7	8.5	-	1.3	-
Avg.	92.9	89.2	84.3	98.1	96.2	97.3	7.6	6.5	1.1	-0.6
Std Dev	0.2	0.6	1.2	0.3	1.3	1.1	0.7	4.4	0.3	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.3
 SIKORSKY S-76 SPIRIT HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 1/12/81

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	93.9	90.6	81.2	91.4	94.2	95.6	25.0	21.0	1.4	-0.8
36	94.9	91.4	83.6	92.8	95.9	96.9	14.0	14.5	1.1	-0.8
40	95.7	92.4	85.9	93.2	97.3	98.2	14.5	16.5	1.0	-0.9
42	95.1	91.9	85.0	92.1	96.1	97.2	14.0	14.0	1.2	-0.7
44				NO DATA						
54	94.9	91.8	84.9	91.0	96.0	97.7	13.0	14.0	1.8	-1.0
56	94.6	91.4	84.4	91.9	95.7	96.7	13.0	14.0	1.6	-1.0
Avg.	94.9	91.6	84.2	92.1	95.9	97.1	15.6	15.7	1.3	-0.9
Std Dev	0.6	0.6	1.6	0.8	1.0	0.9	4.7	2.8	0.3	0.1
TAKEOFF										
33	87.3	83.8	74.6	80.7	85.9	88.3	17.0	16.0	2.5	-1.6
35	86.4	83.4	74.5	78.8	85.3	87.1	16.5	16.0	1.9	-1.5
37	86.3	83.3	73.9	79.6	85.1	87.1	17.0	16.5	2.0	-1.4
39	87.1	84.4	75.9	79.6	87.2	89.4	15.0	14.0	2.2	-1.3
41	87.1	84.5	76.3	79.9	87.2	89.5	14.0	13.5	2.3	-1.4
43	86.7	83.9	75.4	79.4	86.5	88.9	14.5	13.5	2.4	-1.4
53	85.9	83.3	74.4	78.4	85.4	87.4	17.5	16.5	2.2	-1.4
55	85.1	82.4	73.8	77.6	84.2	86.1	16.0	15.5	1.9	-1.3
Avg.	86.5	83.6	74.9	79.2	85.9	88.0	15.9	15.2	2.2	-1.4
Std Dev	0.7	0.7	0.9	1.0	1.0	1.2	1.3	1.3	0.2	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

21	88.1	85.5	76.7	82.7	88.6	89.7	20.5	17.0	1.0	-0.8
22	87.8	85.1	77.3	84.1	88.1	89.5	12.5	12.5	1.5	-1.0
23	87.3	84.6	75.5	82.1	87.9	88.7	16.0	14.5	1.3	-0.8
24	88.7	85.7	76.9	84.4	88.9	90.8	13.5	12.0	2.7	-1.1
Avg.	88.0	85.3	76.6	83.3	88.4	89.7	15.6	14.0	1.6	-0.9
Std Dev	0.6	0.5	0.8	1.1	0.5	0.9	3.6	2.3	0.7	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

29	87.3	84.5	77.1	81.3	88.7	89.8	13.5	13.5	1.1	-0.8
30	85.5	82.9	75.1	81.6	87.5	88.8	11.5	10.5	1.2	-1.0
31	85.7	83.3	75.1	80.0	86.6	87.7	16.5	15.0	1.1	-0.7
32	83.7	81.2	73.5	79.3	85.6	86.9	15.5	11.0	1.3	-0.9
Avg.	85.6	83.0	75.2	80.6	87.1	88.3	14.2	12.5	1.2	-0.9
Std Dev	1.4	1.4	1.5	1.1	1.3	1.3	2.2	2.1	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

49	87.7	85.1	78.7	88.2	90.4	91.3	8.5	8.5	0.9	-0.7
50	87.7	84.9	78.1	85.4	89.7	90.9	10.5	10.0	1.2	-0.9
51	85.6	83.1	76.0	86.5	88.0	89.3	12.5	10.5	1.3	-0.8
52	86.2	83.7	76.8	86.6	87.7	89.1	11.0	10.5	1.3	-0.9
Avg.	86.8	84.2	77.4	86.7	89.0	90.2	10.6	9.9	1.2	-0.8
Std Dev	1.0	1.0	1.2	1.1	1.3	1.1	1.7	0.9	0.2	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

17	89.3	86.7	79.1	91.9	90.6	91.7	12.0	11.5	1.1	-0.7
18	88.8	85.9	80.3	96.3	92.6	93.8	7.0	6.0	1.2	-0.5
19	89.0	86.6	80.3	92.8	91.1	92.3	10.5	10.5	1.2	-0.8
20	87.1	84.4	78.9	94.2	90.7	91.8	8.0	7.5	1.1	-0.6
Avg.	88.5	85.9	79.6	93.8	91.2	92.4	9.4	8.9	1.2	-0.7
Std Dev	1.0	1.1	0.8	1.9	0.9	1.0	2.3	2.6	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

25	89.7	86.8	80.5	96.5	92.1	93.0	9.5	11.0	0.7	-0.7
26	90.2	87.3	81.0	99.7	93.4	94.1	8.0	8.0	0.9	-0.6
27	92.5	89.1	83.4	100.3	96.0	96.5	8.0	9.0	0.5	-0.5
28	91.2	88.1	81.8	100.8	94.9	95.5	8.0	7.5	0.7	-0.5
Avg.	90.9	87.8	81.7	99.3	94.1	94.8	8.4	8.9	0.7	-0.6
Std Dev	1.2	1.0	1.3	2.0	1.7	1.6	0.7	1.5	0.1	0.1

TABLE NO. A.2-3.3

BIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 23, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / \ **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

9	93.5	90.5	85.2	94.7	97.4	98.3	7.5	7.5	0.9	-0.7
10	91.9	89.0	85.0	96.1	97.1	98.1	5.5	5.5	1.0	-0.7
15	90.8	88.1	83.1	94.5	94.7	95.5	7.5	7.5	0.8	-0.7
16	91.0	87.7	83.4	96.9	95.6	96.8	5.5	5.5	1.2	-0.7
Avg.	91.8	88.8	84.2	95.6	96.2	97.2	6.5	6.5	1.0	-0.7
Std Dv	1.2	1.2	1.1	1.2	1.3	1.3	1.2	1.2	0.2	0.0

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

7	88.9	86.7	79.5	89.5	90.0	91.1	14.0	15.0	1.1	-0.7
8	87.0	85.3	77.7	91.3	89.0	90.1	10.5	9.5	1.1	-0.7
13	86.4	84.4	77.0	88.8	87.1	88.4	14.0	15.0	1.3	-0.7
14	87.3	85.0	78.1	92.4	89.9	90.7	9.5	9.0	0.8	-0.5
Avg.	87.4	85.3	78.1	90.5	89.0	90.1	12.0	12.1	1.1	-0.7
Std Dv	1.1	1.0	1.1	1.7	1.4	1.2	2.3	3.3	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

45	83.3	81.7	73.7	89.4	84.3	85.3	13.0	13.5	1.0	-0.6
46	84.1	82.1	72.3	87.7	82.6	84.4	23.0	23.5	1.8	-0.7
47	83.3	81.7	73.8	89.5	83.6	84.6	15.0	15.5	1.4	-0.6
48	84.2	82.3	75.1	88.6	84.6	85.9	13.5	17.5	1.3	-0.9
1	87.3	85.4	77.2	88.4	86.8	87.9	16.0	19.5	1.2	-0.8
2	86.2	84.5	76.0	91.0	86.7	88.1	13.0	12.5	1.4	-0.7
3	86.3	84.5	76.9	87.2	87.0	88.1	13.5	17.0	1.0	-0.6
4	85.2	83.5	75.0	89.3	85.2	86.4	15.5	16.0	1.2	-0.6
Avg.	85.0	83.2	75.0	88.9	85.1	86.3	15.3	16.9	1.3	-0.7
Std Dv	1.5	1.5	1.7	1.2	1.6	1.5	3.3	3.5	0.3	0.1

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	83.1	81.9	72.6	86.6	81.5	82.7	22.5	27.0	1.2	-0.7
6	82.3	81.2	71.3	85.8	81.5	82.6	19.0	19.0	1.1	-0.6
11	82.9	81.4	72.9	85.4	81.5	82.8	18.5	28.0	1.3	-0.5
12	81.8	80.7	70.0	85.8	80.4	81.6	21.0	20.5	1.3	-0.7
Avg.	82.5	81.3	71.7	85.9	81.2	82.5	20.2	23.6	1.2	-0.6
Std Dv	0.6	0.5	1.3	0.5	0.6	0.6	1.8	4.5	0.1	0.1

TABLE NO. A.2-4.3

BLIKONSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	95.7	92.4	83.7	92.4	96.2	97.0	17.0	16.0	0.8	-0.8
70	95.7	92.6	84.8	92.8	97.0	98.2	13.5	13.5	1.2	-0.9
Avg.	95.7	92.5	84.3	92.6	96.6	97.6	15.2	14.7	1.0	-0.8
Std Dev	0.0	0.1	0.7	0.3	0.6	0.8	2.5	1.8	0.3	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

61	87.3	84.6	76.7	84.9	88.4	89.8	18.5	16.0	1.4	-0.9
62	89.2	86.5	78.4	84.6	89.6	91.1	19.0	18.5	1.5	-0.9
63	87.0	84.2	75.9	83.1	87.4	89.0	13.5	13.5	1.6	-1.0
64	88.1	85.1	77.7	84.4	89.1	90.4	13.5	14.5	1.3	-0.7
Avg.	87.9	85.1	77.2	84.2	88.6	90.1	16.1	15.6	1.5	-0.8
Std Dev	1.0	1.0	1.1	0.8	1.0	0.9	3.0	2.2	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

57	89.1	86.4	79.8	94.9	90.9	92.5	8.5	10.5	1.6	-1.0
58	91.0	88.5	83.5	94.0	94.0	95.4	8.5	9.0	1.5	-1.0
59	90.1	87.3	81.3	94.3	93.0	94.1	8.0	8.5	1.1	-0.9
60	90.3	87.7	82.1	93.8	92.8	94.4	7.5	9.5	1.6	-0.8
Avg.	90.1	87.5	81.7	94.3	92.7	94.1	8.1	9.4	1.4	-0.9
Std Dev	0.8	0.9	1.5	0.5	1.3	1.2	0.5	0.9	0.2	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

65	90.9	87.6	80.9	98.1	92.7	94.0	9.5	10.5	1.2	-0.8
66	-	89.2	83.9	99.4	96.0	97.0	8.0	-	1.0	-
67	91.0	87.7	81.5	98.7	93.0	94.2	8.0	9.5	1.3	-0.9
68	91.0	87.3	83.3	99.2	95.5	96.3	6.0	8.0	0.8	-0.8
Avg.	91.0	87.9	82.4	98.9	94.3	95.4	7.9	7.0	1.1	-0.8
Std Dev	0.1	0.9	1.4	0.6	1.7	1.5	1.4	4.8	0.2	0.0

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ - THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 23, 1980

EV	EFNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	93.7	90.7	81.4	88.6	93.4	95.3	23.0	19.5	2.0	-1.1
36	93.3	90.7	82.5	89.2	94.0	95.1	17.0	16.5	1.3	-0.7
40	93.9	91.1	82.4	88.0	93.3	95.0	17.5	17.0	1.6	-1.0
42	93.9	91.2	81.4	87.8	92.6	94.0	19.0	19.0	1.8	-0.9
44	94.2	91.2	82.8	89.3	93.9	95.8	17.0	16.5	1.9	-1.0
54	92.4	90.1	80.4	86.2	91.3	92.5	21.5	21.5	1.3	-0.8
56	91.8	89.1	79.6	85.2	90.3	91.6	22.0	22.0	1.4	-0.8
Avg.	93.3	90.6	81.5	87.8	92.7	94.2	19.6	18.9	1.6	-0.9
Std Dv	0.9	0.7	1.2	1.6	1.4	1.6	2.6	2.3	0.3	0.2

TAKEOFF

33	92.0	88.5	79.1	83.6	90.9	92.9	16.5	16.5	1.9	-1.7
35	91.5	88.5	79.8	84.4	90.4	92.1	16.5	17.5	1.7	-1.6
37	91.6	88.6	80.1	84.4	90.7	92.5	16.5	17.5	1.8	-1.6
39	91.7	88.6	79.6	84.4	90.5	92.0	17.5	18.0	1.9	-1.5
41	91.4	88.6	79.9	84.5	90.7	92.6	15.5	16.0	1.8	-1.6
43	91.1	88.1	79.4	84.3	90.0	91.9	18.0	18.5	1.8	-1.6
53	90.5	87.2	78.3	83.0	89.5	91.2	15.5	16.0	1.7	-1.4
55	90.3	87.0	77.6	82.9	89.1	91.0	18.0	18.0	1.9	-1.6
Avg.	91.2	88.1	79.2	83.9	90.2	92.0	16.7	17.2	1.8	-1.6
Std Dv	0.6	0.7	0.9	0.7	0.6	0.7	1.0	1.0	0.1	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EFNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4		SIDELINE -164M. NORTH						UNE 23,1980		
EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS										
21	87.7	85.7	76.2	81.7	87.0	88.3	18.5	18.5	1.3	-1.0
22	89.3	86.8	77.6	84.7	89.8	91.1	15.5	14.0	1.3	-0.7
23	84.9	84.5	74.4	81.8	85.3	86.9	23.5	21.5	1.9	-1.2
24	88.2	85.5	75.3	81.8	87.9	89.2	19.5	17.5	1.4	-0.7
Avg.	88.0	85.6	75.9	82.5	87.5	88.9	19.2	17.9	1.5	-0.9
Std Dv	1.0	0.9	1.4	1.5	1.9	1.8	3.3	3.1	0.3	0.2
500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS										
29	88.1	85.7	76.8	83.7	87.7	89.1	16.0	16.5	1.4	-0.9
30	87.3	85.5	77.4	83.3	87.8	89.3	14.0	14.5	1.5	-1.0
31	87.5	85.2	76.5	83.0	87.4	88.8	15.5	15.5	1.4	-0.9
32	87.0	85.2	76.7	82.9	87.5	88.9	15.5	15.0	1.3	-0.9
Avg.	87.5	85.4	76.9	83.2	87.6	89.0	15.2	15.4	1.4	-0.9
Std Dv	0.5	0.2	0.4	0.4	0.2	0.2	0.9	0.9	0.1	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS										
49	-	86.5	79.0	86.4	89.8	90.5	11.5	-	0.7	-
50	88.1	85.7	78.2	88.8	89.2	90.7	11.0	11.5	1.7	-0.9
51	87.8	86.0	78.1	85.1	88.8	89.5	13.5	14.5	0.6	-0.7
52	87.5	84.9	77.0	89.3	88.7	90.4	11.5	12.5	1.8	-1.0
Avg.	87.8	85.8	78.1	87.4	89.1	90.3	11.9	9.6	1.2	-0.8
Std Dv	0.3	0.7	0.9	2.0	0.5	0.5	1.1	6.5	0.6	0.1
500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS										
17	90.1	87.4	79.8	92.2	90.7	92.7	13.0	12.5	1.9	-1.1
18	90.5	88.8	82.5	93.1	93.3	94.1	9.0	9.0	0.8	-0.7
19	90.0	87.6	80.2	94.0	91.1	92.6	12.0	11.5	1.4	-1.1
20	89.8	88.0	81.5	92.5	92.2	93.4	10.0	10.0	1.2	-0.8
Avg.	90.1	88.0	81.0	92.9	91.8	93.2	11.0	10.7	1.4	-0.9
Std Dv	0.3	0.6	1.2	0.8	1.1	0.7	1.8	1.6	0.5	0.2
500 FT FLYBY - TARGET INDICATED AIRSPEED 155 KTS										
25	92.9	89.5	82.9	99.9	94.5	96.2	9.0	9.5	1.7	-0.8
26	92.1	89.7	83.1	98.1	94.1	95.4	9.5	10.0	1.4	-0.9
27	94.4	90.2	83.6	101.5	96.1	97.4	9.0	10.5	1.4	-1.0
28	92.7	90.3	83.9	98.8	94.8	95.9	8.5	9.0	1.2	-0.8
Avg.	93.0	89.9	83.4	99.6	94.9	96.2	9.0	9.7	1.4	-0.9
Std Dv	1.0	0.4	0.5	1.5	0.8	0.9	0.4	0.6	0.2	0.1

TABLE NO. A.2-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

9	92.0	89.1	82.7	95.3	94.4	95.6	8.0	8.5	1.1	-1.0
10	91.8	89.5	83.6	91.4	94.5	96.0	8.0	8.0	1.5	-1.1
15	91.4	88.5	82.7	94.9	94.1	95.5	8.0	9.0	1.4	-1.0
16	92.8	90.7	83.9	93.1	94.8	96.1	8.0	8.5	1.3	-0.9
Avg.	92.0	89.4	83.2	93.7	94.4	95.8	8.0	8.5	1.4	-1.0
Std Dv	0.6	0.9	0.6	1.8	0.3	0.3	0.0	0.4	0.2	0.1

700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

7	88.4	85.9	77.0	92.6	87.8	89.2	15.5	16.0	1.7	-0.8
8	87.9	86.1	78.2	90.5	88.9	90.6	12.0	11.5	1.7	-0.9
13	89.0	86.6	77.9	92.4	88.9	90.5	14.5	14.5	1.6	-1.0
14	88.7	86.9	78.8	91.9	89.7	90.4	12.0	12.5	0.7	-0.9
Avg.	88.5	86.4	78.0	91.9	88.9	90.2	13.5	13.6	1.4	-0.9
Std Dv	0.5	0.5	0.8	0.9	0.8	0.7	1.8	2.0	0.5	0.1

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

45	86.3	84.3	75.9	90.1	86.6	88.2	14.5	13.5	1.6	-1.1
46	85.6	83.6	74.0	92.4	84.5	85.8	19.5	21.0	1.5	-0.7
47	86.6	84.3	75.1	90.4	87.0	88.6	16.0	15.0	1.6	-1.1
48	86.4	84.0	74.9	92.7	85.6	87.2	16.5	17.0	1.7	-0.8
1	86.9	84.5	74.6	91.4	85.3	86.9	18.5	22.0	1.6	-0.7
2	87.0	84.9	76.4	92.2	87.1	88.3	14.0	14.0	1.3	-1.0
3	86.6	84.4	75.1	91.0	86.2	87.6	17.0	16.0	1.5	-0.5
4	86.7	84.4	74.9	90.5	86.3	87.7	15.0	14.5	1.3	-1.1
Avg.	86.5	84.3	75.1	91.3	86.1	87.5	16.4	16.6	1.5	-0.9
Std Dv	0.4	0.4	0.7	1.0	0.9	0.9	1.9	3.2	0.1	0.2

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

5	83.3	81.4	70.8	89.4	81.4	82.2	24.5	25.5	0.8	-0.6
6	83.3	81.5	70.9	87.3	81.6	82.8	23.0	22.5	1.2	-0.9
11	83.7	81.6	71.4	89.2	82.6	83.3	21.5	27.0	0.8	-0.8
12	83.2	81.6	71.8	87.1	82.2	83.7	18.0	17.5	1.4	-1.0
Avg.	83.4	81.5	71.2	88.3	81.9	83.0	21.7	23.1	1.0	-0.8
Std Dv	0.2	0.1	0.5	1.2	0.6	0.7	2.8	4.2	0.3	0.2

TABLE NO. A.2-4.4

SIKORSKY S-76 SPIRIT HELICOPTER
 SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%
 AS MEASURED *

DOT/TSC
 10/14/80

SITE: 4

SIDELINE -164M. NORTH

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	92.1	89.4	80.2	87.4	92.0	93.6	17.0	15.5	1.6	-0.9
70	92.1	89.6	80.7	86.6	92.1	94.2	19.0	17.5	2.2	-1.0
Avg.	92.1	89.5	80.5	87.0	92.1	93.9	18.0	16.5	1.9	-1.0
Std Dv	0.0	0.2	0.4	0.6	0.1	0.4	1.4	1.4	0.4	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS

61	87.8	85.4	75.8	82.4	87.1	88.1	21.0	21.0	1.1	-0.9
62	87.6	85.2	76.1	83.5	87.2	89.1	16.0	15.5	1.8	-1.0
63	87.1	84.9	75.1	81.6	86.0	87.6	19.5	19.0	1.6	-0.8
64	87.2	84.7	75.1	83.1	87.2	88.8	17.5	14.5	1.5	-0.8
Avg.	87.4	85.0	75.5	82.7	86.9	88.4	18.5	17.5	1.5	-0.9
Std Dv	0.3	0.3	0.5	0.9	0.6	0.7	2.2	3.0	0.3	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

57	91.0	89.0	81.9	93.9	93.0	94.4	11.0	11.0	1.4	-0.7
58	90.9	87.9	80.9	97.0	93.5	94.8	11.0	10.5	1.4	-0.9
59	91.4	89.3	81.9	94.0	93.2	94.3	10.5	10.5	1.1	-0.7
60	90.3	87.1	80.1	96.6	92.5	94.0	10.5	10.5	1.5	-1.0
Avg.	90.9	88.3	81.2	95.4	93.0	94.4	10.7	10.6	1.3	-0.8
Std Dv	0.4	1.0	0.9	1.6	0.4	0.3	0.3	0.2	0.2	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS

65	92.4	90.1	82.7	96.1	93.8	95.1	10.5	11.0	1.2	-0.7
66	92.2	88.4	81.9	99.1	94.0	95.4	10.0	11.5	1.4	-0.9
67	92.7	90.2	82.9	96.9	94.1	95.3	10.5	12.0	1.1	-0.6
68	92.0	88.6	82.0	99.9	94.3	95.6	9.0	9.5	1.4	-0.8
Avg.	92.3	89.3	82.4	98.0	94.1	95.3	10.0	11.0	1.3	-0.8
Std Dv	0.3	1.0	0.5	1.8	0.2	0.2	0.7	1.1	0.1	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
 FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.2-1.5
SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/17/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	90.6	87.5	78.1	85.9	90.7	91.7	27.5	22.0	1.0	-0.7
36	91.3	87.6	78.4	86.1	90.6	92.2	20.0	19.5	1.6	-0.9
40	90.7	87.2	76.6	84.8	89.6	90.6	24.0	20.0	1.4	-0.9
42	90.8	87.6	77.3	85.3	89.9	91.1	30.5	19.0	1.3	-0.9
44	90.9	87.4	77.6	85.4	90.3	91.4	22.0	20.0	1.2	-0.9
54	89.6	86.4	76.1	83.3	88.4	89.6	23.5	22.5	1.4	-0.9
56	89.4	86.2	75.6	83.1	88.1	89.0	23.0	22.0	1.0	-0.8
Avm.	90.5	87.2	77.1	84.8	89.7	90.8	24.4	20.7	1.3	-0.9
Std Dv	0.7	0.6	1.0	1.2	1.1	1.1	3.5	1.4	0.2	0.1
TAKEDOFF										
33	88.4	85.9	76.3	80.9	87.4	89.6	16.5	16.0	2.2	-1.3
35	88.5	86.2	77.7	82.0	88.9	90.6	13.5	13.5	1.8	-1.0
37	88.6	86.3	78.0	82.4	89.1	90.8	12.5	13.0	1.7	-1.1
39	88.6	86.3	78.3	82.5	88.9	90.2	12.0	13.0	1.4	-1.1
41	88.6	86.4	78.9	83.3	89.4	90.7	12.0	13.0	1.3	-1.1
43	88.1	85.9	78.1	82.6	88.9	90.0	12.0	12.5	1.1	-1.1
53	88.3	85.9	77.0	82.2	88.4	89.7	14.5	14.5	1.3	-1.1
55	87.3	84.9	76.0	80.7	86.9	88.3	16.5	16.0	1.4	-1.2
Avm.	88.3	86.0	77.5	82.1	88.5	90.0	13.7	13.9	1.5	-1.1
Std Dv	0.4	0.5	1.0	0.9	0.9	0.8	1.9	1.4	0.4	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.5
 SIKORSKY S-76 SPIRIT HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 10/17/80

AS MEASURED *

SITE: 5		SIDELINE - 150 M. SOUTH						JUNE 23, 1980		
EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS										
21	87.2	85.3	75.4	80.0	86.3	87.8	26.0	22.0	1.4	-1.0
22	85.9	83.3	75.2	81.5	86.7	88.5	13.0	12.5	1.8	-1.1
23	88.4	85.5	76.0	81.4	88.0	90.2	19.5	17.5	2.2	-1.2
24	87.7	85.2	75.9	82.5	87.4	88.8	15.0	14.0	1.5	-0.9
Avg.	87.3	84.8	75.6	81.3	87.1	88.8	18.4	16.5	1.8	-1.1
Std Dv	1.1	1.0	0.4	1.0	0.7	1.0	5.8	4.2	0.4	0.1
500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS										
29	87.2	85.4	76.3	82.0	87.1	88.4	19.0	17.5	1.3	-0.7
30	85.6	83.3	75.8	84.5	87.3	88.4	11.0	10.5	1.1	-0.6
31	86.9	84.9	76.1	82.4	86.8	88.1	17.0	19.0	1.4	-0.8
32	84.6	82.3	74.0	81.7	85.2	86.5	14.0	13.0	1.2	-0.9
Avg.	86.1	84.0	75.6	82.7	86.6	87.8	15.2	15.0	1.3	-0.8
Std Dv	1.2	1.4	1.1	1.3	1.0	0.9	3.5	3.9	0.1	0.1
500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS										
49	86.2	83.9	77.0	89.3	88.5	89.5	10.5	10.0	1.0	-0.8
50	87.2	85.4	78.0	84.8	88.6	89.6	13.0	14.0	0.9	-0.7
51	85.6	83.4	75.7	87.2	87.0	88.1	13.5	11.5	1.1	-0.8
52	86.7	84.7	76.4	83.9	87.4	88.2	14.0	14.0	0.8	-0.8
Avg.	86.4	84.3	76.8	86.3	87.9	88.8	12.7	12.4	1.0	-0.8
Std Dv	0.6	0.9	1.0	2.5	0.8	0.8	1.6	2.0	0.1	0.1
500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS										
17	90.3	88.0	79.9	89.3	90.9	92.4	13.5	12.5	1.5	-1.0
18	88.8	86.2	80.4	95.2	92.0	92.9	8.0	8.0	1.2	-0.8
19	90.1	88.2	79.8	89.6	90.3	91.4	14.0	14.3	1.4	-0.9
20	87.6	85.4	79.5	95.1	91.2	91.8	8.5	8.0	0.6	-0.5
Avg.	89.2	86.9	79.9	92.3	91.1	92.1	11.0	10.7	1.2	-0.8
Std Dv	1.3	1.4	0.4	3.3	0.7	0.6	3.2	3.3	0.4	0.2
500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS										
25	90.4	88.4	81.6	93.4	92.1	93.0	11.5	12.5	1.0	-0.7
26	90.9	87.3	81.5	99.8	93.6	94.2	7.5	8.5	0.9	-0.6
27	92.4	89.8	83.5	98.1	94.7	95.8	8.5	9.0	1.2	-0.6
28	92.8	89.1	83.1	101.6	95.4	96.2	7.5	8.5	0.8	-0.6
Avg.	91.6	88.7	82.4	98.2	94.0	94.8	8.7	9.6	1.0	-0.6
Std Dv	1.1	1.0	1.0	3.5	1.4	1.5	1.9	1.9	0.2	0.1

TABLE NO. A.2-3.5

BIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/17/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 23, 1980

EV EPNL NEL DBA(M) QASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

9	91.7	89.5	82.6	91.0	93.4	94.5	11.0	10.5	1.6	-1.3
10	88.7	86.0	80.2	93.2	91.9	93.1	8.0	7.5	1.5	-0.9
15	91.6	89.7	82.9	91.1	93.3	94.7	11.0	10.0	1.4	-1.0
16	90.0	86.9	81.6	94.2	93.5	95.0	7.0	6.5	1.6	-1.0
Avg.	90.5	88.0	81.8	92.7	93.0	94.3	9.2	8.6	1.5	-1.0
Std Dv	1.4	1.9	1.2	2.4	0.8	0.9	2.1	1.9	0.1	0.2

700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

7	88.2	86.0	76.1	88.0	87.0	88.8	18.5	17.5	2.0	-1.1
8	86.1	83.5	77.0	93.1	89.2	90.1	9.5	9.0	0.9	-0.5
13	88.1	85.9	76.6	87.5	87.3	89.2	17.0	16.0	2.1	-1.1
14	87.4	84.8	78.0	93.8	90.2	90.9	10.0	9.5	0.7	-0.4
Avg.	87.4	85.1	76.9	90.6	88.4	89.7	13.7	13.0	1.4	-0.8
Std Dv	1.0	1.2	0.8	3.3	1.5	0.9	4.7	4.4	0.7	0.4

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

45	83.4	81.3	72.4	90.6	83.2	84.2	15.5	15.0	0.9	-0.7
46	85.0	83.1	73.9	87.3	84.1	85.9	19.5	18.0	1.8	-1.1
47	83.9	81.4	72.2	90.9	82.9	84.1	17.5	25.0	1.3	-0.7
48	85.5	83.3	74.2	88.0	85.1	86.8	18.5	17.5	1.7	-0.9
1	86.8	84.6	74.3	86.7	85.0	86.7	21.5	20.5	1.7	-1.1
2	84.4	82.1	73.4	92.1	85.1	85.7	15.0	14.5	0.9	-0.7
3	85.8	83.8	73.7	86.9	84.9	86.6	24.0	19.0	1.8	-0.8
4	-	81.6	72.6	90.9	84.0	85.1	15.0	-	1.1	-
Avg.	85.0	82.7	73.3	89.2	84.3	85.6	18.3	16.2	1.4	-0.9
Std Dv	1.2	1.2	0.8	2.2	0.9	1.1	3.3	7.3	0.4	0.2

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

5	82.7	81.0	69.6	85.4	79.7	81.3	31.5	32.5	1.6	-0.8
6	81.0	79.2	69.3	87.6	80.1	81.0	21.0	22.5	0.9	-0.5
11	82.8	80.5	70.0	84.9	80.4	81.4	30.0	45.5	1.1	-0.5
12	81.6	79.6	69.5	87.7	80.8	81.8	19.5	23.5	1.0	-0.4
Avg.	82.0	80.1	69.6	86.4	80.3	81.4	25.5	31.0	1.1	-0.5
Std Dv	0.9	0.8	0.3	1.5	0.4	0.3	6.1	10.7	0.3	0.2

TABLE NO. A.2-4.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/17/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	90.6	87.3	76.5	84.1	89.2	90.1	24.5	22.5	0.9	-0.9
70	89.8	86.9	75.9	83.3	88.4	90.0	23.5	22.0	1.6	-0.8
Avg.	90.2	87.1	76.2	83.7	88.8	90.1	24.0	22.2	1.3	-0.8
Std Dv	0.5	0.3	0.4	0.6	0.6	0.1	0.7	0.4	0.5	0.0

500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS

61	85.6	83.5	75.2	82.4	86.6	88.0	17.0	15.5	1.3	-0.9
62	87.8	85.6	75.7	81.7	86.7	87.9	18.0	18.0	1.2	-0.7
63	85.5	83.2	74.2	81.8	86.0	86.9	14.5	14.0	1.0	-0.6
64	88.0	85.9	75.3	82.6	86.8	88.1	26.0	21.0	1.2	-0.7
Avg.	86.7	84.5	75.1	82.1	86.6	87.7	18.9	17.1	1.2	-0.7
Std Dv	1.4	1.4	0.6	0.4	0.4	0.5	5.0	3.1	0.2	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

57	88.3	85.9	78.9	95.2	90.4	91.2	10.0	10.5	0.9	-0.7
58	90.7	88.6	80.0	92.7	91.7	92.8	12.5	12.0	1.3	-0.5
59	88.9	86.4	80.0	95.1	91.7	92.5	8.5	8.5	0.8	-0.7
60	91.0	89.0	80.6	92.6	91.7	92.7	14.0	14.0	1.1	-0.6
Avg.	89.7	87.5	79.9	93.9	91.4	92.3	11.2	11.2	1.0	-0.6
Std Dv	1.3	1.6	0.7	1.5	0.6	0.7	2.5	2.3	0.2	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS

65	89.9	87.1	81.1	97.9	92.5	93.5	8.0	10.0	1.0	-0.6
66	92.5	90.1	82.2	97.4	94.1	95.4	10.5	10.5	1.3	-0.6
67	90.2	87.3	81.0	98.4	92.6	93.6	9.0	10.0	0.9	-0.7
68	91.5	89.0	81.9	96.5	92.9	94.7	10.0	10.5	1.8	-0.8
Avg.	91.0	88.4	81.6	97.5	93.1	94.3	9.4	10.2	1.3	-0.7
Std Dv	1.2	1.4	0.6	0.8	0.7	0.9	1.1	0.3	0.4	0.1

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.50

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	94.2	91.4	83.1	89.9	95.1	95.9	16.0	16.5	0.9	-0.3
36	93.0	89.7	80.9	86.4	92.5	94.1	16.5	16.5	1.6	-0.8
40	95.1	91.7	81.9	90.2	94.2	95.4	19.5	19.5	1.2	-0.5
42	95.0	91.9	82.4	90.4	94.6	96.1	19.0	18.5	1.4	-0.5
44	94.7	91.8	82.8	89.9	94.8	95.5	18.5	18.0	0.7	-0.2
54	94.1	91.2	81.0	88.8	93.1	93.9	23.0	23.0	1.0	-0.3
56	94.0	90.7	80.8	88.4	93.4	94.2	22.0	21.5	0.8	-0.3
Avg.	94.3	91.2	81.8	89.1	94.0	95.0	19.2	19.1	1.1	-0.4
Std Dv	0.7	0.8	1.0	1.4	1.0	0.9	2.6	2.5	0.3	0.2
TAKEOFF										
33	93.7	91.1	81.6	85.5	92.7	94.8	15.5	15.5	2.2	-1.3
35	94.4	91.7	83.9	86.8	93.9	96.1	11.5	13.5	2.4	-1.4
37	94.4	91.8	83.8	86.7	94.1	96.1	12.5	13.0	2.1	-1.3
39	94.5	92.1	84.9	87.7	95.0	96.0	11.5	13.0	2.1	-1.2
41	94.4	92.1	85.2	87.9	95.2	96.6	10.0	11.5	2.2	-1.2
43	94.1	91.6	84.4	87.2	94.5	95.9	10.5	12.0	2.2	-1.3
53	94.2	91.4	82.5	85.8	94.0	95.9	13.0	13.5	1.9	-1.4
55	92.8	90.3	81.9	85.3	92.6	94.8	13.5	14.0	2.1	-1.3
Avg.	94.1	91.5	83.5	86.6	94.0	95.8	12.2	13.2	2.2	-1.3
Std Dv	0.6	0.6	1.3	1.0	0.9	0.6	1.8	1.2	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.56

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 5/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 56

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

21	91.9	89.4	79.9	84.9	91.1	92.2	18.0	17.5	1.1	-0.7
22	90.3	88.2	79.9	84.7	90.6	92.2	12.5	12.5	1.6	-0.8
23	92.7	89.8	80.7	86.2	92.8	94.3	15.0	14.5	1.5	-0.7
24	92.0	89.7	81.0	85.6	92.1	93.3	13.5	13.5	1.2	-0.5
Avg.	91.7	89.3	80.4	85.3	91.7	93.0	14.7	14.5	1.3	-0.7
Std Dev	1.0	0.7	0.6	0.7	1.0	1.0	2.4	2.2	0.3	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

29	92.0	89.5	81.2	86.4	92.4	94.0	13.5	12.5	1.4	-0.9
30	90.4	88.2	81.2	86.3	92.4	93.5	10.0	10.0	1.1	-0.6
31	91.6	89.2	80.9	86.4	92.1	93.7	14.0	13.5	1.5	-1.0
32	89.4	87.5	79.6	84.0	90.4	91.4	12.5	13.0	1.0	-0.7
Avg.	90.9	88.6	80.7	85.8	91.8	93.1	12.5	12.2	1.2	-0.8
Std Dev	1.2	0.9	0.8	1.2	1.0	1.2	1.8	1.6	0.2	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

49	91.7	89.7	83.2	91.0	94.6	95.5	9.5	9.5	0.8	-0.4
50	93.4	90.9	83.4	89.2	94.6	96.2	12.5	11.0	1.6	-0.9
51	91.1	89.0	82.2	88.7	93.1	94.3	10.5	11.0	1.2	-0.7
52	92.6	89.9	81.8	87.9	93.1	94.8	12.5	12.0	1.6	-0.9
Avg.	92.2	89.9	82.7	89.2	93.9	95.2	11.2	10.9	1.3	-0.7
Std Dev	1.0	0.8	0.8	1.3	0.9	0.8	1.5	1.0	0.4	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

17	95.0	92.3	84.5	90.9	95.8	97.1	12.0	12.0	1.7	-0.9
18	93.7	91.2	85.6	96.2	97.0	98.0	7.5	7.5	1.0	-0.7
19	94.7	92.3	84.5	91.1	95.3	96.7	13.0	12.5	1.5	-1.0
20	92.6	90.3	84.5	95.8	95.7	96.7	8.0	8.5	1.0	-0.5
Avg.	94.0	91.5	84.8	93.5	96.0	97.1	10.1	10.1	1.3	-0.8
Std Dev	1.1	1.0	0.5	2.9	0.7	0.6	2.8	2.5	0.4	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

25	95.4	93.0	86.5	94.8	97.2	98.2	10.0	10.5	1.0	-0.8
26	95.1	92.0	86.8	101.3	98.4	98.9	6.5	8.5	0.4	-0.2
27	97.1	94.3	88.1	99.5	99.5	100.6	8.0	8.5	1.1	-0.6
28	96.8	93.8	88.3	102.5	100.3	100.8	7.0	7.5	0.5	-0.3
Avg.	96.1	93.3	87.4	99.5	98.9	99.6	7.9	8.7	0.8	-0.5
Std Dev	1.0	1.0	0.9	3.4	1.3	1.3	1.5	1.3	0.3	0.3

TABLE NO.A.2-3.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC

1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

				NO DATA							
				NO DATA							
9											
10											
15	96.4	93.6	87.4	92.4	98.6	100.0	8.5	8.5	1.7	-1.1	
16	94.9	92.0	87.0	96.5	98.5	99.5	6.0	6.5	1.1	-0.6	
Avail.	95.6	92.8	87.2	94.4	98.5	99.7	7.2	7.5	1.4	-0.9	
Std Dev	1.0	1.2	0.2	2.9	0.1	0.3	1.8	1.4	0.4	0.3	

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

7	92.1	89.8	80.7	89.2	91.6	93.1	16.0	15.0	1.6	-0.7	
8	90.4	88.1	81.4	94.0	92.9	93.6	9.5	9.5	0.7	-0.3	
13	92.4	90.1	81.5	89.0	92.6	93.9	15.0	14.5	1.1	-0.7	
14	92.2	89.8	83.3	95.4	95.0	95.7	9.0	9.0	0.9	-0.3	
Avail.	91.8	89.4	81.7	91.9	93.0	94.1	12.4	12.0	1.1	-0.5	
Std Dev	0.9	0.9	1.1	3.3	1.4	1.1	3.6	3.2	0.4	0.3	

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

45	88.5	86.6	78.4	91.9	89.4	89.9	13.0	14.0	0.6	-0.4	
46	89.9	88.0	79.1	89.5	89.6	91.2	17.5	16.0	1.6	-0.7	
47	88.4	86.7	77.7	92.3	88.4	89.3	16.0	17.5	0.8	-0.4	
48	90.2	88.1	79.6	89.9	90.7	92.0	16.5	15.5	1.3	-0.6	
1	90.6	88.5	78.9	88.1	89.7	91.0	19.0	18.0	1.3	-0.6	
2	89.1	86.9	78.6	93.2	89.8	90.8	13.0	13.0	1.0	-0.3	
3	90.0	87.9	78.7	88.7	89.9	91.1	18.0	16.5	1.1	-0.7	
4	88.1	86.2	77.8	91.9	88.6	89.5	14.5	14.5	1.1	-0.4	
Avail.	89.4	87.4	78.6	90.7	89.5	90.6	15.9	15.6	1.1	-0.5	
Std Dev	0.9	0.9	0.6	1.9	0.7	0.9	2.3	1.7	0.3	0.1	

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	86.4	84.8	74.1	86.7	84.3	85.5	24.5	26.0	1.2	-0.5	
6	85.2	83.9	74.5	88.3	85.0	85.6	19.0	19.0	0.6	-0.2	
11	86.1	84.4	74.5	86.1	85.3	86.4	21.5	25.0	1.1	-0.4	
12	85.5	83.9	74.3	88.3	84.9	85.7	18.0	18.5	1.3	-0.2	
Avail.	85.8	84.2	74.3	87.4	84.9	85.8	20.7	22.1	1.0	-0.3	
Std Dev	0.5	0.4	0.2	1.1	0.4	0.4	2.9	3.9	0.3	0.1	

TABLE NO. A.2-4.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107X

1/12/81

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	94.2	91.0	81.3	87.8	93.8	94.6	23.5	22.0	1.1	-0.5
70	94.1	90.9	80.1	87.3	93.1	93.6	23.0	23.0	1.3	-0.5
Avg.	94.2	91.0	80.7	87.5	93.5	94.1	23.2	22.5	1.2	-0.5
Std Dv	0.1	0.1	0.9	0.3	0.5	0.7	0.4	0.7	0.1	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

61	91.7	89.0	81.3	85.6	92.9	94.2	15.0	15.0	1.2	-0.6
62	93.5	90.4	81.0	86.2	92.6	94.3	17.0	16.5	1.7	-0.8
63	91.1	88.5	79.5	85.4	91.5	92.3	14.0	14.0	0.8	-0.5
64	93.1	90.0	80.4	86.4	92.7	93.7	19.0	17.5	1.0	-0.6
Avg.	92.3	89.5	80.5	85.9	92.4	93.6	16.2	15.7	1.2	-0.6
Std Dv	1.1	0.9	0.8	0.5	0.7	0.9	2.2	1.6	0.4	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

57	94.2	91.5	84.7	96.4	96.8	97.6	9.5	9.5	0.8	-0.5
58	-	92.8	84.9	94.4	97.5	98.4	12.0	-	1.0	-
59	94.3	91.5	85.0	96.7	97.0	97.7	8.5	9.0	0.7	-0.4
60	96.3	93.1	85.6	94.4	97.5	98.9	12.5	11.5	1.7	-0.8
Avg.	94.9	92.2	85.1	95.5	97.2	98.1	10.6	7.5	1.0	-0.6
Std Dv	1.2	0.8	0.3	1.2	0.3	0.6	1.9	5.1	0.4	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

65	95.1	92.1	86.6	97.9	98.2	99.1	7.0	8.5	1.0	-0.6
66	-	94.8	87.9	98.8	100.4	101.4	10.0	-	1.0	-
67	-	92.7	87.1	99.0	99.0	99.8	7.0	-	0.8	-
68	97.3	93.7	86.7	97.7	99.3	100.1	10.0	9.5	0.8	-0.6
Avg.	96.2	93.3	87.1	98.3	99.2	100.1	8.5	4.5	0.9	-0.6
Std Dv	1.6	1.2	0.6	0.7	0.9	0.9	1.7	5.2	0.1	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
34	87.3	85.3	74.5	80.5	85.5	86.8	28.0	27.0	1.3	-0.5
36	87.9	85.6	76.5	81.9	87.6	89.4	29.5	25.5	1.9	-0.6
40	87.5	85.2	76.6	80.9	86.6	88.3	26.0	26.0	1.7	-0.5
42	83.2	81.2	72.3	76.4	82.3	83.7	22.5	23.5	1.7	-0.5
44	88.9	86.7	77.2	82.0	87.2	88.7	21.0	22.5	1.5	-0.7
54	86.6	84.5	75.3	80.6	86.2	87.2	24.0	24.0	1.0	-0.5
56	86.9	84.9	74.8	79.3	84.7	86.4	30.0	30.0	2.5	-0.5
Avg.	86.9	84.8	75.3	80.2	85.7	87.2	25.9	25.5	1.6	-0.5
Std Dv	1.8	1.7	1.7	1.9	1.8	1.9	3.5	2.5	0.5	0.1

TAKEOFF

33	-	84.3	74.1	79.8	85.0	87.1	20.0	-	2.0	-
35	88.1	85.6	75.6	80.6	85.7	87.5	23.0	23.0	1.7	-1.5
37	-	85.0	75.3	80.7	85.9	87.5	22.0	-	1.7	-
39	87.9	85.2	74.5	81.0	85.0	86.7	24.5	24.0	1.9	-1.4
41	87.9	85.1	74.1	80.9	85.3	87.7	22.0	21.5	2.5	-1.5
43	87.5	84.8	74.2	81.2	84.8	87.3	24.5	22.0	2.6	-1.4
53	87.7	85.0	73.6	80.2	85.6	87.9	30.0	22.0	2.2	-1.5
55	87.1	84.2	72.7	79.5	84.5	86.9	25.5	23.5	2.7	-1.6
Avg.	87.7	84.9	74.3	80.5	85.2	87.3	23.9	17.0	2.2	-1.5
Std Dv	0.4	0.5	0.9	0.6	0.5	0.4	3.0	10.5	0.4	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

21	84.0	82.3	70.7	78.3	81.1	82.5	29.0	28.5	1.6	-0.7
22	84.2	82.3	71.8	77.6	82.8	84.2	24.0	20.0	1.4	-0.7
23	82.4	80.8	70.3	76.3	80.6	81.8	27.5	27.5	1.1	-0.8
24	83.0	80.9	70.1	77.1	80.9	82.5	24.0	23.5	1.5	-0.8

Avg.	83.4	81.6	70.7	77.3	81.4	82.7	26.1	24.9	1.4	-0.8
Std Dev	0.9	0.9	0.8	0.9	1.0	1.0	2.5	3.9	0.2	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

29	83.6	81.6	71.6	77.9	82.1	83.6	20.5	20.5	1.6	-0.7
30	84.1	82.3	72.7	79.6	82.8	84.7	19.0	18.5	2.0	-1.0
31	83.1	81.3	71.5	78.1	81.9	83.2	20.5	23.0	1.5	-0.6
32	84.5	82.5	73.0	79.4	83.0	84.2	19.5	21.0	1.5	-1.1

Avg.	83.8	81.9	72.2	78.7	82.5	83.9	19.9	20.7	1.6	-0.9
Std Dev	0.6	0.6	0.7	0.9	0.5	0.7	0.7	1.8	0.2	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

49	86.4	84.7	76.4	83.0	86.9	88.3	14.0	13.5	1.4	-0.7
50	84.8	82.7	74.1	82.8	85.0	86.4	16.0	15.5	1.4	-0.8
51	86.9	85.1	75.9	82.7	86.2	87.8	18.5	18.0	1.5	-0.9
52	84.4	82.5	73.5	84.7	84.1	85.2	17.5	17.5	1.4	-0.6

Avg.	85.6	83.7	75.0	83.3	85.6	86.9	16.5	16.1	1.4	-0.8
Std Dev	1.2	1.3	1.4	0.9	1.2	1.4	2.0	2.1	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

17	85.6	83.4	74.1	86.4	84.7	86.1	17.5	18.0	1.5	-0.7
18	87.9	86.2	78.9	87.4	88.8	89.9	12.5	14.5	1.1	-1.0
19	86.3	84.2	75.6	88.4	86.1	87.7	15.5	16.0	1.6	-0.8
20	87.1	85.6	78.5	87.1	88.3	89.8	12.5	13.0	1.5	-0.9

Avg.	86.7	84.8	76.8	87.4	87.0	88.4	14.5	15.4	1.4	-0.9
Std Dev	1.0	1.3	2.3	0.8	1.9	1.8	2.4	2.1	0.2	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

25	88.4	85.6	77.5	92.9	88.4	90.1	13.0	14.5	1.8	-0.9
26	88.7	86.4	78.8	91.5	89.5	91.2	12.5	11.5	1.7	-1.0
27	89.9	86.4	78.6	94.2	90.6	92.0	13.0	13.0	1.4	-0.6
28	89.3	87.2	80.0	91.9	90.6	91.8	11.0	10.5	1.3	-1.0

Avg.	89.1	86.4	78.7	92.6	89.8	91.3	12.4	12.4	1.6	-0.9
Std Dev	0.7	0.7	1.0	1.2	1.0	0.8	0.9	1.7	0.3	0.2

TABLE NO. A.2-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

9	87.2	85.3	76.8	87.1	87.2	86.7	14.5	13.5	1.4	-0.7
10	88.1	86.4	80.0	86.2	89.4	90.6	10.5	12.0	1.0	-0.9
15	86.6	84.4	76.5	87.3	87.0	88.1	14.0	15.5	1.2	-0.6
16	87.7	86.0	79.3	86.6	89.4	91.1	11.5	11.0	1.7	-1.0
Avg.	87.4	85.5	78.1	86.8	88.3	89.6	12.6	13.0	1.3	-0.8
Std Dv	0.7	0.9	1.7	0.5	1.3	1.4	1.9	2.0	0.3	0.2

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

7	86.1	83.9	74.0	89.1	84.9	86.5	19.0	18.5	1.6	-0.8
8	85.4	83.9	75.1	86.0	85.1	86.8	16.0	15.0	1.9	-1.2
13	86.5	84.3	75.0	88.3	85.8	87.1	17.0	17.0	1.4	-1.0
14	-	84.6	76.2	87.4	86.2	86.9	12.5	-	0.9	-
Avg.	86.0	84.2	75.1	87.7	85.5	86.8	16.1	12.6	1.4	-1.0
Std Dv	0.5	0.3	0.9	1.3	0.6	0.3	2.7	8.5	0.4	0.2

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

45	84.5	82.8	73.9	87.5	84.1	85.1	17.0	18.0	1.6	-0.9
46	84.7	82.5	72.7	89.9	84.3	85.8	21.0	18.5	1.6	-0.8
47	85.5	83.9	74.3	87.9	84.4	86.0	18.5	18.5	2.0	-0.8
48	85.0	82.5	72.7	90.0	84.9	86.6	19.5	16.5	1.8	-1.0
1	85.5	83.3	73.4	88.5	84.2	85.3	22.0	21.0	1.1	-0.8
2	85.4	83.9	75.3	90.1	86.3	87.8	17.0	14.0	1.6	-0.8
3	85.1	82.8	72.7	87.6	84.0	85.4	23.0	22.0	1.7	-0.9
4	85.5	83.9	75.3	88.6	84.8	85.7	16.5	18.0	0.9	-1.0
Avg.	85.1	83.2	73.8	88.8	84.6	86.0	19.3	18.3	1.5	-0.9
Std Dv	0.4	0.6	1.1	1.1	0.8	0.9	2.5	2.5	0.4	0.1

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	82.2	80.4	69.4	87.2	79.6	81.1	29.0	26.0	1.9	-0.7
6	82.7	81.0	71.7	85.9	82.0	83.2	20.5	20.0	1.1	-0.9
11	82.8	80.6	70.5	86.6	81.5	82.7	21.0	25.5	1.2	-0.8
12	82.5	80.9	70.2	85.8	81.1	82.8	19.5	18.5	1.8	-0.9
Avg.	82.5	80.7	70.5	86.3	81.0	82.5	22.5	22.5	1.5	-0.8
Std Dv	0.3	0.3	1.0	0.6	1.1	0.9	4.4	3.8	0.4	0.1

TABLE NO. A.2-4.6

SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
1/13/81

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 23, 1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
69	87.7	85.6	77.0	81.4	84.5	88.4	21.0	21.5	1.9	-0.5
70	86.9	85.1	77.1	82.7	88.2	89.5	25.0	24.5	1.3	-0.5
Avg.	87.3	85.4	77.0	82.0	87.4	88.9	23.0	23.0	1.6	-0.5
Std Dev	0.6	0.3	0.0	0.9	1.2	0.7	2.8	2.1	0.4	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

61	85.4	83.6	73.1	80.2	83.3	84.4	27.0	27.0	1.1	-0.7
62	83.8	81.9	71.2	81.4	81.8	83.1	34.0	31.0	1.5	-0.6
63	84.4	82.7	71.9	79.8	82.3	84.0	22.5	22.0	1.7	-0.7
64	83.2	81.2	70.1	81.9	80.7	81.9	27.0	27.0	1.2	-0.7
Avg.	84.2	82.4	71.6	80.8	82.0	83.4	27.6	26.7	1.4	-0.7
Std Dev	0.9	1.0	1.2	1.0	1.1	1.1	4.7	3.7	0.2	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

57	88.1	86.4	77.0	90.1	87.9	89.2	16.0	16.0	1.5	-0.6
58	87.1	84.5	76.4	92.2	87.4	88.8	14.5	13.0	1.4	-0.7
59	88.8	86.9	78.7	90.2	89.4	90.4	13.0	16.5	1.2	-1.0
60	86.8	84.1	75.4	92.6	86.2	87.7	16.0	15.5	1.4	-0.5
Avg.	87.7	85.5	76.8	91.3	87.7	89.0	14.9	15.7	1.4	-0.7
Std Dev	0.9	1.4	1.4	1.3	1.3	1.1	1.4	0.6	0.1	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

65	90.8	88.5	80.9	94.2	91.7	93.5	12.0	12.5	2.0	-0.8
66	89.3	85.8	78.7	95.5	90.0	90.8	12.0	17.5	0.8	-0.6
67	90.8	88.1	79.9	94.2	90.8	92.4	13.0	16.5	1.6	-1.0
68	-	86.0	78.4	96.2	89.6	91.0	12.0	-	1.6	-
Avg.	90.3	87.1	79.4	95.0	90.5	91.9	12.2	11.6	1.5	-0.8
Std Dev	0.8	1.4	1.2	1.0	1.0	1.3	0.5	8.0	0.5	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-1.1
AUGUSTA A-109 HELICOPTER (ITALIAN)
SUMMARY NOISE LEVEL DATA

DOT/TSC
10/15/80

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 24, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**
APPROACH

24	99.1	97.2	89.3	94.9	100.8	101.6	17.0	17.5	0.8	-0.7
26	98.8	96.7	86.8	92.9	98.1	99.3	26.0	21.5	1.3	-0.8
28	99.1	97.0	88.7	95.4	100.4	101.1	14.5	14.0	0.7	-0.5
32	98.9	96.4	87.1	94.5	98.2	99.3	21.0	17.0	1.1	-1.1
34	99.2	96.8	87.6	95.7	99.5	100.8	19.0	18.0	1.3	-1.0
36	97.9	95.7	86.8	93.9	97.9	98.6	17.5	17.5	0.9	-0.9
38	98.5	95.9	88.3	93.9	99.0	100.8	15.0	15.0	1.9	-1.1
40	98.5	96.2	88.5	94.7	99.8	101.2	12.0	11.5	1.4	-0.9
64	96.9	94.2	87.5	95.0	99.3	100.4	11.0	11.0	1.1	-0.9
Avg.	98.6	96.2	87.9	94.5	99.2	100.3	17.0	15.9	1.2	-0.9
Std Dv	0.7	0.9	0.9	0.9	1.0	1.0	4.6	3.4	0.3	0.2

TAKEOFF

23	93.7	90.6	83.8	89.1	96.1	97.4	11.5	10.0	1.3	-1.1
25	96.0	92.2	87.0	90.7	99.5	101.0	7.5	7.0	1.3	-1.3
27	96.2	92.8	88.1	91.3	100.0	101.5	7.0	6.5	1.3	-1.3
29	94.8	91.3	85.3	89.3	97.8	99.2	8.5	7.5	1.2	-1.2
31	93.2	90.0	84.4	89.4	96.1	97.7	8.0	7.5	1.6	-1.4
33	94.5	90.9	85.4	90.0	97.8	99.5	8.0	7.0	1.7	-1.6
35	94.5	91.1	86.0	91.1	97.7	99.7	7.0	6.0	2.0	-1.5
37	94.0	90.4	84.5	89.2	96.5	98.1	8.5	8.0	1.6	-1.6
39	94.1	90.4	84.5	89.5	97.1	98.8	9.0	7.0	1.7	-1.5
41	93.7	90.1	84.6	88.6	97.0	98.4	8.0	7.0	1.9	-1.5
Avg.	94.5	91.0	85.4	89.8	97.6	99.1	8.3	7.3	1.6	-1.4
Std Dv	1.0	0.9	1.3	0.9	1.3	1.4	1.3	1.1	0.3	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC

10/15/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS										
21	89.4	86.0	77.3	86.6	89.9	92.2	17.0	14.5	2.3	-1.3
22	89.1	86.0	77.6	87.1	90.4	92.3	21.5	16.0	1.9	-1.2
46	89.0	85.7	78.1	86.5	90.5	92.4	14.5	13.0	2.0	-1.2
47	88.7	85.8	76.4	85.6	89.1	91.3	19.0	14.0	2.4	-1.3
Avm.	89.0	85.8	77.3	86.4	90.0	92.1	18.0	14.4	2.1	-1.2
Std Dv	0.3	0.2	0.7	0.6	0.6	0.5	3.0	1.2	0.2	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS										
51	89.2	86.1	77.8	86.3	89.7	91.7	15.5	13.0	2.0	-1.5
52	90.1	86.9	78.2	87.7	90.2	92.2	17.5	13.5	2.0	-1.4
53	89.2	86.0	77.7	86.2	89.7	91.7	14.5	13.5	2.0	-1.5
56	90.5	87.4	78.4	87.3	90.8	92.9	23.0	15.0	2.0	-1.4
Avm.	89.7	86.6	78.0	86.9	90.1	92.1	17.6	13.7	2.0	-1.4
Std Dv	0.6	0.7	0.3	0.7	0.5	0.5	3.8	0.9	0.0	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS										
54	91.5	88.1	79.4	88.0	91.4	93.6	14.5	14.0	2.2	-1.6
55	91.1	88.1	79.1	87.2	90.8	92.7	19.5	18.5	1.9	-1.6
57	90.2	87.1	77.8	86.2	89.5	91.4	17.5	15.0	1.9	-1.6
58	90.5	87.2	78.1	87.2	90.6	92.6	17.0	14.5	2.0	-1.6
Avm.	90.8	87.6	78.6	87.2	90.6	92.6	17.1	15.5	2.0	-1.6
Std Dv	0.6	0.5	0.7	0.8	0.8	0.9	2.1	2.0	0.1	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
17	91.9	88.4	80.6	88.7	91.6	94.1	14.5	14.0	2.6	-1.8
18	92.1	88.9	80.1	88.4	91.3	93.3	16.5	16.0	2.0	-1.7
19	92.3	88.8	81.7	88.7	93.0	95.0	11.0	10.0	2.0	-1.8
20	92.3	89.1	80.2	88.2	91.4	93.5	17.0	15.5	2.1	-1.6
62	92.4	89.0	81.0	89.0	92.1	94.4	13.0	12.5	2.3	-1.7
63	91.9	88.7	80.6	89.1	91.7	93.9	12.0	11.5	2.3	-1.5
Avm.	92.1	88.8	80.7	88.7	91.9	94.0	14.0	13.2	2.2	-1.7
Std Dv	0.2	0.3	0.6	0.3	0.6	0.6	2.4	2.3	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS										
48	95.2	91.8	84.2	94.4	95.5	98.2	10.5	9.5	2.7	-2.0
49	94.8	91.0	82.7	93.3	94.1	96.8	12.5	12.0	2.7	-2.0
50	95.8	92.2	85.4	94.5	96.6	99.1	10.0	9.5	2.5	-2.1
59	95.3	91.7	84.8	93.6	96.0	98.7	9.5	9.5	2.7	-2.1
60	94.5	90.8	82.7	93.3	93.7	96.2	13.5	13.5	2.5	-2.0
61	94.0	90.5	82.6	92.3	93.7	96.5	12.0	11.0	2.8	-1.9
Avm.	94.9	91.3	83.7	93.6	94.9	97.6	11.3	10.8	2.7	-2.0
Std Dv	0.6	0.6	1.2	0.8	1.3	1.2	1.6	1.7	0.1	0.0

TABLE NO. A.3-3.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
10/16/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
9	94.2	90.9	84.5	91.0	95.5	97.6	9.5	9.5	2.1	-1.8
10	94.9	91.4	83.8	92.2	95.4	97.2	10.5	10.0	1.9	-1.7
15	96.3	93.1	85.8	92.4	97.0	99.1	13.0	12.5	2.5	-1.7
16	96.8	93.8	86.1	93.1	97.8	99.5	12.5	9.5	1.8	-1.6
Avg.	95.6	92.3	85.1	92.2	96.4	98.3	11.4	10.4	2.1	-1.7
Std Dv	1.2	1.4	1.1	0.9	1.1	1.1	1.7	1.4	0.3	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

7	89.2	86.0	76.7	85.0	87.5	89.8	17.0	16.0	2.3	-1.8
8	89.8	87.0	76.6	85.4	88.1	90.1	22.5	22.0	2.0	-1.5
13	91.6	88.8	80.4	87.0	90.5	92.8	15.0	14.5	2.6	-1.8
14	91.5	88.6	79.0	86.4	89.7	91.9	21.0	19.0	2.2	-1.5
Avg.	90.5	87.6	78.2	85.9	88.9	91.1	18.9	17.9	2.3	-1.7
Std Dv	1.2	1.3	1.8	0.9	1.4	1.4	3.5	3.3	0.2	0.2

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

2	88.2	85.3	75.0	83.4	86.0	88.1	27.5	24.0	2.2	-1.5
3	87.9	84.6	74.5	83.7	85.8	87.9	19.5	18.5	2.2	-2.0
4	88.1	85.3	74.4	83.5	86.0	88.3	27.0	25.0	2.2	-1.5
42	88.0	85.0	76.0	84.1	86.8	88.6	23.0	23.0	2.2	-1.7
43	88.1	85.1	75.8	83.8	86.0	88.5	23.0	22.5	2.5	-1.7
44	87.0	84.1	73.5	82.2	84.4	86.7	25.0	23.5	2.3	-1.6
45	88.0	84.9	75.5	82.9	86.2	88.7	22.5	22.5	2.4	-1.8
Avg.	87.9	84.9	75.0	83.4	85.9	88.1	23.9	22.7	2.3	-1.7
Std Dv	0.4	0.4	0.9	0.7	0.8	0.7	2.8	2.1	0.1	0.2

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

5	83.8	81.0	69.5	81.1	81.5	83.6	32.5	27.0	2.1	-1.5
6	85.6	82.8	71.3	81.2	82.0	84.2	31.0	27.5	2.2	-1.5
11	85.1	82.5	71.3	81.0	81.9	84.0	32.5	30.5	2.1	-1.6
12	86.8	84.2	72.7	81.0	82.9	85.3	37.0	36.0	2.4	-1.6
Avg.	85.3	82.6	71.2	81.1	82.0	84.3	33.2	30.2	2.2	-1.5
Std Dv	1.2	1.3	1.3	0.1	0.6	0.7	2.6	4.1	0.1	0.1

TABLE NO. A.3-1.10

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE - CENTER (FLUSH)

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	DABPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
24	103.0	101.3	93.5	98.8	104.3	105.4	16.5	16.5	1.0	-0.5
26	102.2	100.4	90.9	96.3	101.3	102.1	20.0	26.5	0.8	-0.4
28	102.4	100.8	92.6	98.8	103.5	104.3	13.0	13.5	0.7	-0.2
32	101.9	100.1	91.0	97.2	101.8	102.5	19.5	20.5	0.7	-0.4
34	102.2	100.5	91.6	98.6	102.7	103.3	18.0	18.5	0.6	-0.5
36	101.1	99.5	90.4	96.4	101.2	102.6	17.0	17.0	1.4	-0.6
38	101.3	99.5	91.3	96.6	101.8	102.4	15.0	15.5	0.6	-0.4
40	102.4	100.6	92.6	98.1	103.5	104.9	11.5	11.0	1.3	-0.4
64	100.1	98.0	91.8	97.8	102.5	103.3	9.5	11.0	0.9	-0.4
Avg.	101.8	100.1	91.7	97.6	102.5	103.4	15.6	16.7	0.9	-0.4
Std Dev	0.9	1.0	1.0	1.0	1.1	1.2	3.6	4.9	0.3	0.1
TAKEOFF										
23	97.4	94.1	87.2	93.0	98.8	100.7	10.5	9.0	2.3	-1.1
25	99.5	96.1	90.7	95.2	102.4	104.6	7.5	6.5	2.2	-1.2
27	100.4	96.8	92.0	96.0	103.6	105.6	6.5	6.5	2.0	-1.2
29	98.7	95.1	88.9	93.5	100.7	102.6	8.5	8.5	2.1	-1.0
31	98.0	94.5	89.2	93.6	100.9	102.9	7.5	7.0	2.0	-1.2
33	98.1	94.8	89.1	93.9	101.0	103.1	8.5	7.0	2.1	-1.2
35	98.6	95.3	90.2	95.4	101.5	103.5	7.0	6.5	2.0	-1.4
37	97.9	94.5	88.8	93.1	100.4	102.5	8.0	7.0	2.1	-1.1
39	97.4	93.9	87.7	92.8	99.8	101.9	8.5	7.0	2.2	-1.2
41	97.6	94.1	88.6	92.3	100.5	102.6	8.0	6.5	2.1	-1.1
Avg.	98.4	94.9	89.2	93.9	101.0	103.0	8.0	7.1	2.1	-1.2
Std Dev	1.0	0.9	1.4	1.2	1.3	1.4	1.1	0.9	0.1	0.1

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.10

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE - CENTER (FLUSH)

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS										
21	92.8	89.4	81.5	89.1	93.5	95.0	15.5	15.5	1.6	-0.9
22	92.6	89.3	80.5	89.7	93.1	94.6	21.5	18.0	1.5	-0.9
46	92.5	89.4	81.4	89.6	93.4	94.7	15.0	14.5	1.3	-0.8
47	92.0	89.2	79.7	88.5	91.8	93.5	19.5	17.5	1.7	-0.8
Avg.	92.5	89.3	80.8	89.2	92.9	94.5	17.9	16.4	1.5	-0.9
Std Dev	0.4	0.1	0.9	0.6	0.8	0.6	3.1	1.7	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS										
51	92.9	89.9	82.1	89.7	93.8	95.2	13.5	13.5	1.7	-1.0
52	93.3	90.2	82.0	90.0	94.2	95.6	17.0	13.0	1.5	-1.0
53	92.2	89.1	81.4	88.7	93.1	94.7	14.5	14.0	1.7	-1.0
56	93.4	90.2	82.4	89.6	94.6	95.8	17.0	16.5	1.3	-1.1
Avg.	93.0	89.8	82.0	89.5	93.9	95.3	15.5	14.2	1.5	-1.0
Std Dev	0.5	0.5	0.4	0.6	0.6	0.5	1.8	1.6	0.2	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS										
54	93.8	90.8	82.5	89.7	94.3	95.8	14.0	13.5	1.5	-1.1
55	93.6	90.6	82.2	89.7	94.0	95.6	14.0	13.0	1.5	-1.1
57	93.0	89.8	81.7	88.7	93.3	95.1	15.0	14.5	1.9	-1.2
58	93.4	90.3	81.1	89.9	93.5	95.4	17.5	14.5	1.9	-1.2
Avg.	93.5	90.4	81.9	89.5	93.8	95.5	15.1	13.9	1.7	-1.1
Std Dev	0.3	0.4	0.6	0.6	0.4	0.3	1.7	0.7	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
17	95.7	92.3	84.8	92.2	96.2	97.8	13.5	13.5	1.6	-1.3
18	95.6	92.4	83.5	91.5	95.9	97.7	18.0	15.5	1.9	-1.2
19	96.2	93.0	86.1	92.6	97.5	99.0	10.5	10.0	1.5	-1.4
20	96.0	92.8	84.3	91.8	96.4	98.1	15.0	14.5	1.7	-1.3
62	95.3	92.0	84.2	91.7	96.5	98.2	12.5	11.5	1.8	-1.3
63	94.8	91.8	84.4	91.9	95.4	97.0	11.5	11.5	1.6	-1.2
Avg.	95.6	92.4	84.6	91.9	96.3	98.0	13.5	12.7	1.6	-1.3
Std Dev	0.5	0.4	0.8	0.4	0.7	0.6	2.7	2.1	0.1	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS										
48	99.2	95.7	88.1	97.0	99.9	102.2	10.5	9.5	2.4	-1.8
49	97.9	94.5	86.6	96.1	97.9	100.1	12.0	11.5	2.5	-1.6
50	99.2	95.5	89.0	97.1	100.4	102.8	9.0	9.0	2.4	-1.8
59	98.3	94.9	87.8	96.4	99.5	101.7	9.5	9.0	2.2	-1.6
60	97.4	93.7	86.2	96.4	98.0	100.0	11.0	10.0	2.1	-1.6
61	97.6	94.2	87.0	95.9	98.1	99.8	11.5	11.5	2.3	-1.5
Avg.	98.3	94.8	87.4	96.5	99.0	101.1	10.6	10.1	2.3	-1.6
Std Dev	0.8	0.8	1.0	0.5	1.1	1.3	1.2	1.2	0.2	0.1

TABLE NO. A.3-3.10

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE - CENTER (FLUSH)

JUNE 24, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / \ **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

9	98.1	94.7	88.9	95.4	100.5	101.8	9.5	9.5	1.4	-1.2
10	98.5	94.9	88.3	95.9	100.6	102.1	9.5	9.0	1.5	-1.3
15	98.8	95.3	89.2	96.1	101.1	102.5	8.0	8.0	1.4	-1.2
16	99.0	95.6	89.2	96.4	101.4	102.8	9.0	8.5	1.6	-1.3
Avm.	98.6	95.1	88.9	96.0	100.9	102.3	9.0	8.7	1.5	-1.2
Std Dev	0.4	0.4	0.5	0.4	0.4	0.4	0.7	0.6	0.1	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

7	93.5	90.4	81.5	89.2	92.7	94.4	15.5	15.0	2.3	-1.3
8	93.3	90.2	80.8	88.7	92.7	94.2	19.5	18.5	1.8	-1.1
13	94.2	91.2	83.1	90.2	94.4	95.9	14.0	13.5	1.6	-1.2
14	93.7	90.6	81.6	89.2	93.6	95.3	17.5	16.5	1.7	-1.2
Avm.	93.7	90.6	81.7	89.3	93.4	95.0	16.6	15.9	1.8	-1.2
Std Dev	0.4	0.4	0.9	0.6	0.8	0.8	2.4	2.1	0.3	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

1	-	87.0	78.7	87.8	90.0	91.5	11.5	-	1.5	-
2	91.6	88.6	78.6	86.9	90.3	92.1	24.0	24.0	1.8	-1.1
3	91.4	88.3	78.6	87.0	90.1	91.6	19.0	18.0	1.5	-1.4
4	91.7	88.8	78.1	86.6	89.7	91.4	27.5	25.5	1.8	-1.2
42	91.0	88.2	79.7	87.4	91.0	92.4	21.5	20.0	1.4	-1.2
43	91.6	88.5	79.0	87.3	90.3	92.4	17.5	22.0	2.3	-1.5
44	90.5	87.7	78.0	86.4	89.7	91.5	24.0	21.0	1.9	-1.1
45	91.3	88.3	79.6	86.5	90.8	92.3	18.5	22.5	1.5	-1.4
Avm.	91.3	88.2	78.8	87.0	90.2	91.9	20.7	19.1	1.7	-1.3
Std Dev	0.4	0.6	0.6	0.5	0.5	0.4	5.2	8.1	0.3	0.2

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

5	87.7	85.0	73.4	84.4	85.2	86.7	31.0	27.5	1.7	-1.0
6	89.1	86.3	75.2	84.9	86.8	88.5	28.5	28.0	1.6	-1.1
11	88.1	85.4	74.1	84.1	85.1	86.7	32.0	30.0	1.6	-1.1
12	89.6	86.6	75.3	84.7	86.9	88.7	36.0	34.0	1.8	-1.4
Avm.	88.6	85.8	74.5	84.5	86.0	87.7	31.9	29.9	1.7	-1.2
Std Dev	0.9	0.7	0.9	0.3	1.0	1.1	3.1	3.0	0.1	0.2

TABLE NO. A.3-1.1H
 AUGUSTA A-109 HELICOPTER (ITALIAN)
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 12/ 9/80

AS MEASURED *

SITE: 1H		CENTERLINE - CENTER (10 METER)							JUNE 24, 1980	
EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
24	97.3	95.5	88.0	92.3	99.3	100.1	14.0	12.5	0.7	-0.7
26	96.3	94.5	85.1	89.4	95.9	96.8	22.0	22.0	0.8	-0.7
28	96.1	94.2	86.3	91.8	97.6	98.4	13.0	12.5	0.7	-0.6
32	96.7	94.7	85.2	90.9	96.6	97.5	20.0	19.5	0.9	-0.7
34	96.5	94.7	85.4	91.5	97.3	97.9	19.0	15.5	0.6	-0.6
36	95.8	93.6	84.6	89.0	95.8	97.2	17.5	16.5	1.1	-0.8
38	96.3	94.0	86.3	90.3	97.2	98.2	14.5	14.5	1.1	-0.6
40	96.7	94.4	86.8	91.6	98.1	99.4	11.0	11.0	1.5	-0.8
64	94.0	91.5	84.8	89.8	96.3	97.4	10.0	10.5	1.0	-0.7
Avm.	96.2	94.1	85.8	90.7	97.1	98.1	15.9	14.9	0.9	-0.7
Std Dv	0.9	1.1	1.1	1.2	1.1	1.1	4.1	3.9	0.3	0.1
TAKEOFF										
23	92.0	88.3	81.9	88.0	94.3	95.9	11.0	8.5	1.6	-1.6
25	94.2	89.6	84.7	89.6	97.6	99.6	6.5	6.0	1.9	-1.6
27	95.9	91.6	87.0	90.5	99.4	101.3	6.5	6.0	1.9	-1.6
29	94.5	90.0	84.8	88.4	97.7	99.6	7.5	7.0	1.9	-1.6
31	93.9	89.4	84.2	87.9	97.2	99.0	8.0	6.5	2.1	-1.6
33	94.1	89.7	84.5	88.3	97.3	98.8	7.0	6.5	1.5	-1.6
35	94.4	90.0	85.0	89.8	97.5	99.4	6.5	6.0	2.0	-1.7
37	94.0	89.5	83.8	87.8	96.6	98.5	8.0	6.5	1.9	-1.5
39	94.2	89.4	84.3	88.1	97.7	99.4	7.5	6.5	1.7	-1.7
41	93.6	89.1	84.0	87.3	96.8	99.0	7.0	6.0	2.2	-1.6
Avm.	94.1	89.6	84.4	88.6	97.2	99.1	7.5	6.5	1.9	-1.6
Std Dv	1.0	0.8	1.3	1.0	1.3	1.3	1.3	0.8	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TD	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS										
21	86.6	83.3	75.1	82.2	87.6	89.2	16.5	15.0	1.7	-1.1
22	86.9	83.7	74.4	82.0	87.3	88.8	22.0	19.5	1.5	-1.0
46	87.2	83.9	75.6	82.7	88.2	89.7	16.5	15.0	1.4	-1.1
47	86.0	82.9	73.7	81.4	86.4	88.2	19.5	14.5	1.8	-1.1
Avd.	86.7	83.5	74.7	82.1	87.4	89.0	18.6	16.0	1.6	-1.1
Std Dv	0.5	0.4	0.8	0.6	0.7	0.6	2.7	2.3	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS										
51	86.3	83.3	75.1	83.2	87.4	88.9	15.0	13.5	1.4	-1.3
52	87.4	84.3	75.7	82.9	88.2	89.7	18.5	16.0	1.5	-1.2
53	86.5	83.3	74.7	82.1	87.2	89.0	15.5	14.5	1.8	-1.4
56	87.5	84.2	75.7	82.8	88.0	89.5	16.0	16.0	1.4	-1.3
Avd.	86.9	83.8	75.3	82.8	87.7	89.3	16.2	15.0	1.5	-1.3
Std Dv	0.6	0.5	0.5	0.5	0.5	0.4	1.6	1.2	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS										
54	88.3	85.3	76.5	84.0	88.7	90.2	15.0	14.5	1.4	-1.4
55	87.5	84.4	76.2	83.1	88.5	90.1	14.0	13.0	1.6	-1.4
57	86.9	83.8	75.6	82.9	87.9	89.4	14.0	13.0	1.6	-1.4
58	87.3	84.2	75.2	83.0	87.9	89.5	17.5	14.5	1.6	-1.2
Avd.	87.5	84.4	75.9	83.3	88.3	89.8	15.1	13.7	1.6	-1.4
Std Dv	0.6	0.7	0.6	0.5	0.4	0.4	1.7	0.9	0.1	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
17	89.4	86.2	79.6	85.4	90.2	92.6	9.0	9.5	2.7	-1.6
18	89.2	86.3	77.4	84.7	89.2	90.4	16.5	16.5	1.8	-1.4
19	89.7	86.7	78.5	85.5	90.5	92.0	12.5	11.5	1.5	-1.7
20	89.7	86.8	77.7	85.1	90.0	91.2	17.0	15.0	1.3	-1.4
62	88.6	85.7	77.2	85.3	89.0	90.4	13.0	12.5	1.6	-1.1
63	88.7	85.7	77.4	85.4	89.3	90.6	12.5	12.5	1.3	-1.4
Avd.	89.2	86.2	78.0	85.2	89.7	91.2	13.4	12.9	1.7	-1.4
Std Dv	0.5	0.5	0.9	0.3	0.6	0.9	3.0	2.5	0.5	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS										
48	92.7	89.4	82.1	91.0	93.1	95.9	9.5	9.0	2.9	-1.8
49	92.3	89.0	80.5	89.2	92.3	93.7	12.5	12.0	1.5	-1.7
50	93.1	89.8	83.0	91.1	94.1	96.7	9.5	9.5	2.6	-1.8
60	91.9	88.4	81.0	90.0	91.8	94.3	11.0	11.0	2.5	-1.7
61	91.7	88.4	81.1	89.1	92.1	94.3	9.0	9.5	3.0	-1.7
Avd.	92.3	89.0	81.5	90.0	92.7	95.0	10.3	10.2	2.5	-1.7
Std Dv	0.6	0.6	1.0	1.0	0.9	1.3	1.4	1.3	0.6	0.0

TABLE NO. A.3-3.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

9	91.8	88.5	82.4	89.1	94.1	95.6	9.0	9.0	1.5	-1.6
10				NO DATA						
15	91.9	88.7	82.4	89.1	94.5	95.9	9.5	8.0	1.5	-1.6
16	93.2	90.0	82.7	89.7	94.7	96.2	9.5	9.0	2.7	-1.5
Avg.	92.3	89.1	82.5	89.3	94.4	95.9	9.3	8.7	1.9	-1.6
Std Dev	0.8	0.8	0.2	0.3	0.3	0.3	0.3	0.6	0.7	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

7	87.1	84.2	75.6	83.0	86.6	88.8	16.0	15.5	2.3	-1.5
8	87.4	85.0	74.6	82.4	86.7	88.0	24.0	19.5	1.3	-1.3
13	87.4	84.5	75.5	83.1	87.4	89.0	15.5	14.5	1.6	-1.5
14	87.5	84.8	74.7	82.6	86.4	88.2	20.5	18.0	1.8	-1.3
Avg.	87.4	84.6	75.1	82.8	86.8	88.5	19.0	16.9	1.7	-1.4
Std Dev	0.2	0.3	0.5	0.3	0.4	0.5	4.0	2.3	0.4	0.2

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

1		79.4	71.4	80.1	83.0	84.4	10.0	-	1.5	-
2	85.9	83.4	72.5	81.1	83.7	85.5	29.0	26.5	1.8	-1.3
3	84.6	81.9	71.6	80.6	83.5	85.0	20.0	19.0	1.5	-1.6
4	85.6	83.1	72.3	80.8	83.6	85.1	28.0	24.0	1.7	-1.2
42	85.4	82.6	73.3	81.4	84.4	85.8	22.5	22.5	1.4	-1.2
43	85.4	82.5	73.0	80.2	84.4	86.1	23.5	22.5	1.7	-1.4
44	85.2	82.4	72.1	80.7	83.6	85.4	24.0	23.0	1.8	-1.2
45	85.3	82.5	72.8	80.4	83.9	85.5	23.5	23.0	1.5	-1.5
Avg.	85.3	82.2	72.4	80.7	83.8	85.4	22.6	20.1	1.6	-1.3
Std Dev	0.4	1.2	0.7	0.4	0.5	0.5	5.8	8.4	0.2	0.1

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

5	81.6	78.9	67.1	76.3	78.6	80.3	31.0	28.0	2.5	-0.8
6	83.6	80.7	69.1	78.3	79.9	81.8	29.0	36.0	2.5	-1.1
11	81.3	78.6	67.7	76.7	78.6	80.9	34.0	30.5	2.3	-1.2
12	83.5	80.6	68.4	77.6	79.5	81.2	39.0	43.5	1.6	-1.4
Avg.	82.5	79.7	68.1	77.2	79.1	81.1	33.2	34.5	2.2	-1.1
Std Dev	1.2	1.1	0.8	0.9	0.7	0.7	4.3	6.9	0.4	0.2

TABLE NO. A.3-1.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
24	101.0	98.7	90.9	97.0	102.0	102.9	14.5	15.0	0.9	-0.9
26	100.4	98.2	90.3	96.9	102.2	103.1	16.0	15.0	0.9	-0.7
28	101.4	99.2	91.4	98.1	103.4	104.4	13.5	12.5	1.0	-0.6
32	101.2	98.6	89.8	97.4	100.9	101.7	17.0	16.5	1.3	-0.8
34	101.4	99.1	91.2	97.4	102.8	103.6	13.5	13.5	0.8	-0.8
36	99.4	97.0	89.6	96.7	101.7	102.6	14.0	13.0	0.9	-0.6
38	100.9	98.2	90.3	97.6	101.9	103.0	14.5	14.5	1.1	-0.9
40	100.8	98.4	91.5	97.9	103.0	103.9	12.5	12.5	0.9	-0.7
64	98.6	96.0	89.1	96.2	100.5	101.2	12.0	12.5	0.7	-0.7
Avg.	100.6	98.2	90.4	97.2	102.1	103.0	14.2	13.9	1.0	-0.8
Std Dev	1.0	1.0	0.8	0.6	1.0	1.0	1.6	1.4	0.2	0.1
TAKEOFF										
23	95.8	92.4	86.7	92.1	98.8	100.6	9.0	8.0	1.8	-1.5
25	97.5	93.4	88.3	93.4	100.8	102.6	7.0	6.0	1.8	-1.6
27	98.8	94.9	90.5	95.0	102.8	104.8	6.0	5.5	2.0	-1.6
29	96.9	93.0	88.2	93.1	100.7	102.2	7.0	6.5	1.5	-1.4
31	96.4	92.6	87.8	92.8	100.5	102.1	7.5	6.0	1.6	-1.4
33	96.1	92.6	87.6	92.9	99.9	101.4	7.5	6.0	1.5	-1.5
35	96.4	92.7	87.8	93.2	100.1	101.9	7.5	6.5	1.8	-1.5
37	96.9	93.0	87.9	92.9	100.4	102.3	7.5	6.5	2.0	-1.7
39	96.5	92.9	87.6	93.0	99.8	101.4	8.0	7.0	1.6	-1.6
41	96.1	92.3	87.0	91.7	99.6	101.4	7.5	6.0	2.0	-1.5
Avg.	96.7	93.0	87.9	93.0	100.4	102.1	7.4	6.4	1.7	-1.5
Std Dev	0.9	0.7	1.0	0.9	1.0	1.1	0.8	0.7	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS										
21	90.3	87.1	78.8	87.0	91.5	93.4	20.5	14.5	2.0	-1.1
22	90.5	87.6	78.4	88.1	91.5	93.4	25.0	14.5	1.9	-1.1
46	90.8	87.6	78.7	88.0	91.5	93.4	20.0	15.0	2.2	-1.2
47	90.1	87.5	78.8	86.7	90.7	92.0	21.0	14.5	1.3	-1.1
Avg.	90.4	87.5	78.7	87.5	91.3	93.1	21.6	14.6	1.8	-1.1
Std Dv	0.3	0.2	0.2	0.7	0.4	0.7	2.3	0.2	0.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS										
51	90.2	87.3	77.9	87.4	90.0	91.8	21.0	15.5	1.8	-0.9
52	90.5	87.2	80.9	88.3	93.1	94.7	10.5	9.5	1.6	-1.2
53	89.8	86.7	77.6	86.3	89.6	91.4	19.0	15.5	1.9	-1.4
56	90.6	87.5	79.2	88.4	92.0	94.2	18.0	12.0	2.2	-1.4
Avg.	90.3	87.2	78.9	87.6	91.2	93.0	17.1	13.1	1.9	-1.2
Std Dv	0.4	0.3	1.5	1.0	1.7	1.7	4.6	2.9	0.2	0.3
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS										
54	92.4	89.1	79.8	88.8	92.5	94.7	18.0	17.0	2.3	-1.7
55	91.3	88.1	78.7	87.0	90.9	92.7	14.5	13.5	1.9	-1.5
57	90.6	87.3	78.7	86.4	90.2	92.2	16.0	15.0	2.3	-1.5
58	91.2	87.8	79.5	88.4	92.1	94.2	16.5	15.0	2.2	-1.5
Avg.	91.4	88.1	79.2	87.7	91.4	93.5	16.2	15.1	2.2	-1.5
Std Dv	0.7	0.7	0.6	1.1	1.0	1.2	1.4	1.4	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
17	94.1	90.9	81.8	89.5	93.2	95.2	12.5	12.0	2.0	-1.6
18	92.9	89.6	80.3	89.3	92.7	94.6	19.5	17.0	2.2	-1.6
19	93.4	89.9	82.0	89.3	92.6	95.2	12.0	12.0	2.6	-1.8
20	94.5	91.3	82.5	89.7	93.7	95.9	16.0	15.5	2.3	-1.7
62	93.5	90.4	82.1	89.7	93.4	95.6	15.0	13.0	2.2	-1.7
63	92.5	89.4	80.6	89.2	91.8	93.8	14.0	13.5	2.0	-1.5
Avg.	93.5	90.2	81.5	89.5	92.9	95.1	14.8	13.8	2.2	-1.7
Std Dv	0.7	0.8	0.9	0.2	0.7	0.7	2.7	2.0	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS										
48	95.6	92.0	84.2	94.6	95.4	97.9	11.0	10.5	2.7	-2.0
49	95.4	92.0	83.2	93.1	93.9	96.7	15.5	15.0	2.8	-1.9
50	95.9	92.2	84.1	94.5	94.9	97.7	12.5	11.5	2.8	-2.0
59	94.8	91.2	84.5	93.9	95.7	98.4	9.0	8.5	2.6	-1.8
60	95.2	91.5	83.6	94.1	94.8	97.3	13.0	12.5	2.6	-2.0
61	94.9	91.6	83.5	93.6	94.6	97.1	12.0	11.0	2.5	-1.9
Avg.	95.3	91.8	83.9	94.0	94.9	97.5	12.2	11.5	2.7	-1.9
Std Dv	0.4	0.4	0.5	0.6	0.6	0.6	2.2	2.2	0.1	0.1

TABLE NO. A.3-3.2
AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 24, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

9	95.5	92.0	85.2	92.4	96.5	98.6	10.5	9.5	2.1	-1.7
10	96.3	92.8	84.4	93.2	96.8	98.6	11.0	10.5	1.8	-1.6
15	95.9	92.4	85.1	92.7	96.8	98.8	10.0	9.0	2.4	-1.7
16	96.3	92.6	85.6	93.4	97.3	99.3	10.5	10.0	2.0	-1.7
Avg.	96.0	92.5	85.1	92.9	96.9	98.8	10.5	9.7	2.1	-1.7
Std Dv	0.4	0.3	0.5	0.5	0.3	0.3	0.4	0.6	0.3	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

7	91.0	87.8	78.3	86.7	89.4	91.5	17.5	16.0	2.2	-1.8
8	91.3	88.3	78.5	86.9	89.9	91.9	22.0	19.0	2.2	-1.5
13	91.6	88.4	79.4	87.3	89.7	92.1	14.5	15.0	2.6	-1.8
14	91.3	88.2	78.0	86.9	90.1	92.3	22.0	20.0	2.1	-1.5
Avg.	91.3	88.2	78.6	87.0	89.8	91.9	19.0	17.5	2.3	-1.6
Std Dv	0.2	0.2	0.6	0.2	0.3	0.3	3.7	2.4	0.2	0.2

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

1	-	82.6	74.7	84.7	85.8	87.9	10.5	-	2.1	-
2	89.2	86.3	74.8	84.1	86.6	88.7	31.0	27.0	2.1	-1.5
3	88.7	85.7	75.1	84.4	85.8	88.2	25.0	20.0	2.5	-1.8
4	89.1	86.2	75.9	84.0	87.0	89.1	26.0	23.5	2.2	-1.5
42	89.4	86.3	76.9	85.0	87.5	89.7	23.5	23.0	2.3	-1.7
43	-	87.5	76.5	86.3	87.2	89.7	32.0	-	2.5	-
44	88.8	85.6	76.3	84.2	87.3	89.7	20.5	20.0	2.4	-1.7
45	88.7	85.6	76.4	84.0	87.0	89.1	21.5	21.0	2.1	-1.7
Avg.	89.0	85.7	75.8	84.6	86.8	89.0	23.7	16.8	2.3	-1.6
Std Dv	0.3	1.4	0.8	0.8	0.7	0.7	6.7	10.6	0.2	0.1

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

5	85.3	82.4	69.9	81.7	81.3	83.5	35.0	32.5	2.3	-1.6
6	86.9	84.0	72.2	82.5	83.2	85.5	31.0	28.5	2.3	-1.7
11	85.1	82.2	71.7	80.5	82.1	84.1	28.5	29.0	2.0	-1.5
12	86.7	83.8	71.4	82.4	83.3	85.5	33.5	28.0	2.2	-1.7
Avg.	86.0	83.1	71.3	81.8	82.5	84.7	32.0	29.5	2.2	-1.6
Std Dv	0.9	0.9	1.0	0.9	1.0	1.0	2.9	2.0	0.1	0.1

TABLE NO. A.3-1.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
24	98.4	96.3	85.9	93.0	97.0	98.3	21.5	20.5	1.4	-0.9
26	102.0	99.5	88.3	96.8	99.9	101.2	29.5	28.5	1.2	-0.8
28	97.7	95.3	86.1	94.2	97.5	98.5	24.5	21.5	1.1	-0.9
32	98.0	95.5	85.4	94.2	97.4	99.2	22.0	19.5	1.6	-0.9
34	99.0	96.4	86.9	94.1	97.9	99.1	19.5	20.0	1.2	-1.1
36	98.6	96.2	87.0	95.2	99.3	100.4	18.5	17.0	1.1	-0.8
38	97.8	95.5	87.4	94.6	98.3	99.4	17.0	19.5	1.1	-0.9
40	97.5	95.3	85.8	93.5	97.2	98.2	23.0	23.0	1.0	-0.9
64	95.1	92.9	84.6	93.9	96.5	97.8	17.5	13.5	1.3	-0.7
Avg.	98.2	95.9	86.4	94.4	97.9	99.1	21.4	20.3	1.2	-0.9
Std Dv	1.8	1.7	1.1	1.1	1.1	1.1	3.9	4.1	0.2	0.1
TAKEOFF										
23	93.4	90.1	83.0	89.7	95.1	96.8	11.5	9.5	1.7	-1.7
25	94.9	91.5	85.3	89.9	97.1	99.0	9.0	8.5	1.8	-1.5
27	95.0	91.6	84.8	89.2	96.7	98.9	9.5	8.0	2.3	-1.5
29	93.9	90.5	84.0	88.4	96.2	97.9	9.5	8.5	2.1	-1.4
31	93.4	90.0	83.4	87.9	95.6	97.1	10.0	8.5	1.6	-1.5
33	93.5	90.0	83.4	88.3	95.4	97.2	10.0	8.5	1.8	-1.6
35	94.2	90.9	84.4	88.8	96.4	98.2	10.0	8.0	2.1	-1.6
37	93.5	89.8	82.8	88.0	95.1	96.9	11.0	9.5	1.8	-1.5
39	93.4	89.9	83.6	88.4	95.6	97.1	9.5	8.5	1.5	-1.4
41	93.3	89.8	82.9	88.1	94.9	96.9	10.5	9.0	2.3	-1.5
Avg.	93.8	90.4	83.8	88.7	95.8	97.6	10.0	8.6	1.9	-1.5
Std Dv	0.7	0.7	0.9	0.7	0.8	0.9	0.8	0.5	0.3	0.1

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS										
21	90.3	87.0	77.1	87.5	90.1	92.2	21.5	19.5	2.1	-1.3
22	89.6	86.5	76.5	87.6	89.4	91.0	25.0	22.5	1.7	-0.9
46	88.9	85.8	76.8	87.9	88.9	90.8	18.5	17.5	1.9	-0.9
47	88.2	85.2	75.7	85.9	88.6	90.7	19.5	17.0	2.1	-1.2
Avg.	89.3	86.1	76.6	87.3	89.2	91.2	21.1	19.1	1.9	-1.1
Std Dv	0.9	0.8	0.6	0.9	0.6	0.7	2.9	2.5	0.2	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS										
51	90.1	87.1	78.0	88.0	90.7	92.7	18.5	13.5	2.0	-1.4
52	90.3	87.4	78.0	88.7	90.1	91.9	19.5	17.0	1.8	-1.1
53	89.8	86.7	77.4	88.1	89.8	91.7	18.5	16.5	2.1	-1.4
56	90.5	87.6	78.2	88.9	90.4	92.2	20.5	15.5	1.9	-1.0
Avg.	90.2	87.2	77.9	88.4	90.2	92.1	19.2	15.6	1.9	-1.2
Std Dv	0.3	0.4	0.3	0.4	0.4	0.4	1.0	1.5	0.1	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS										
54	92.1	89.1	79.9	88.8	91.0	93.0	17.5	17.5	2.1	-1.6
55	91.5	88.5	79.3	88.6	90.4	92.3	18.0	17.5	2.0	-1.5
57	91.0	88.0	78.9	87.4	90.2	92.2	16.5	15.5	2.4	-1.5
58	90.3	87.1	77.9	88.2	90.0	91.8	17.0	14.5	1.7	-1.4
Avg.	91.2	88.2	79.0	88.2	90.4	92.3	17.2	16.2	2.1	-1.5
Std Dv	0.8	0.8	0.9	0.6	0.4	0.5	0.6	1.5	0.3	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
17	92.6	89.6	81.9	89.8	92.7	94.8	11.0	10.5	2.1	-1.7
18	92.7	89.7	80.5	89.4	91.5	93.6	17.0	16.5	2.1	-1.4
19	93.0	89.9	82.2	90.0	92.8	95.3	11.5	11.5	2.5	-1.7
20	92.7	89.8	80.6	89.7	91.8	93.6	18.0	17.5	2.1	-1.6
62	92.4	89.5	81.7	89.9	92.6	94.6	14.0	11.5	2.0	-1.4
63	92.4	89.4	80.8	90.2	91.6	93.8	15.0	14.5	2.2	-1.7
Avg.	92.6	89.6	81.3	89.8	92.2	94.3	14.4	13.7	2.2	-1.6
Std Dv	0.2	0.2	0.7	0.3	0.6	0.7	2.8	2.9	0.2	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS										
48	NO DATA									
49	94.7	91.5	83.1	94.2	94.1	96.4	19.0	12.5	2.3	-2.0
50	96.5	93.2	85.9	95.7	96.6	99.3	11.0	11.0	2.7	-1.9
59	95.4	92.1	84.4	94.6	95.0	97.7	11.5	11.0	2.8	-1.9
60	95.4	92.1	84.7	95.3	95.2	97.9	14.5	14.5	2.7	-1.8
61	94.5	91.3	84.2	94.2	94.8	97.3	10.5	10.0	2.4	-1.8
Avg.	95.3	92.0	84.4	94.8	95.1	97.7	13.3	11.8	2.6	-1.9
Std Dv	0.8	0.8	1.0	0.7	0.9	1.1	3.5	1.8	0.2	0.1
18										

TABLE NO. A.3-3.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

9	94.1	90.9	84.6	91.7	95.6	97.6	9.5	9.5	2.0	-1.7
10	95.0	92.1	84.1	92.9	95.5	97.4	13.5	10.5	2.1	-1.5
15	95.4	92.4	85.2	92.3	96.0	98.0	12.0	11.5	2.1	-1.6
16	95.7	92.7	85.1	92.9	96.5	98.3	12.0	12.0	1.9	-1.4
Avg.	95.1	92.0	84.8	92.5	95.9	97.8	11.7	10.9	2.0	-1.5
Std Dev	0.7	0.8	0.5	0.6	0.4	0.4	1.7	1.1	0.1	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

7	89.9	87.1	78.1	86.6	88.5	90.5	15.5	16.0	2.0	-1.8
8	90.2	87.5	77.3	86.2	88.1	89.9	23.5	23.5	2.0	-1.3
13	90.9	88.0	79.3	88.3	89.9	92.1	13.5	13.0	2.2	-1.8
14	90.0	87.4	77.0	86.2	87.8	89.6	23.0	22.5	1.8	-1.4
Avg.	90.3	87.5	77.9	86.8	88.6	90.5	18.9	18.7	2.0	-1.6
Std Dev	0.5	0.4	1.0	1.0	0.9	1.1	5.1	5.1	0.2	0.3

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

1	-	91.4	83.9	95.5	93.9	96.9	10.5	-	3.4	-
2	88.9	86.1	74.8	84.8	85.6	87.6	29.0	28.5	2.0	-1.4
3	87.7	84.8	76.0	85.5	85.9	88.6	19.0	18.5	2.8	-1.9
4	88.5	85.8	75.0	84.6	85.9	88.0	27.0	26.0	2.1	-1.4
42	88.8	86.0	75.8	84.5	86.1	88.2	22.0	22.0	2.2	-1.6
43	88.6	85.9	77.1	84.7	86.6	89.2	18.5	18.0	2.6	-1.8
44	87.8	85.0	76.1	83.5	86.7	89.0	19.5	19.0	2.3	-1.4
45	87.5	84.4	74.5	84.1	85.2	87.6	26.5	25.5	2.3	-1.8
Avg.	88.3	86.2	76.6	85.9	87.0	89.4	21.5	19.7	2.4	-1.6
Std Dev	0.6	2.2	3.1	3.9	2.8	3.1	6.0	8.9	0.5	0.2

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

5	81.0	79.0	69.1	78.7	78.7	81.1	28.5	28.0	2.4	-1.6
6	85.3	82.8	71.0	81.5	81.5	83.1	35.0	34.0	1.7	-1.4
11	84.7	82.0	70.1	82.9	80.6	82.4	34.0	33.5	2.2	-1.6
12	86.5	83.7	71.4	82.3	82.3	84.5	32.5	31.5	2.2	-1.6
Avg.	84.4	81.9	70.4	81.3	80.7	82.8	32.5	31.7	2.1	-1.6
Std Dev	2.4	2.1	1.0	1.9	1.6	1.4	2.9	2.7	0.3	0.1

TABLE NO. A.3-1.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
10/16/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
24	97.1	94.2	84.9	93.1	95.9	97.4	18.5	20.0	2.1	-1.2
26	-	93.4	84.3	93.2	96.2	97.2	16.5	-	1.0	-
28	95.1	92.2	82.1	92.5	94.7	96.4	23.0	21.0	2.0	-1.0
32	93.8	90.8	80.4	92.2	92.9	93.9	28.5	23.5	1.1	-1.0
34	94.5	91.4	81.6	92.1	94.0	95.9	23.0	21.5	2.0	-1.0
36	96.2	93.6	83.5	91.5	94.4	95.9	28.0	27.5	2.6	-1.2
38	93.4	90.5	80.1	90.2	91.4	93.1	29.0	28.0	1.7	-1.1
40	95.9	93.2	84.0	92.3	94.8	97.1	18.0	15.0	2.3	-1.1
64	95.1	91.9	84.4	92.2	95.5	97.9	11.0	10.5	2.3	-1.5
Avg.	95.1	92.3	82.8	92.2	94.4	96.1	21.7	18.6	1.9	-1.1
Std Dv	1.3	1.3	1.8	0.9	1.5	1.6	6.2	8.9	0.6	0.2

TAKEOFF

23	92.5	89.3	80.8	90.4	92.5	95.1	15.0	14.0	2.6	-1.5
25	93.3	89.8	81.5	90.4	93.2	95.7	14.5	12.5	2.5	-1.3
27	93.0	89.3	81.2	90.7	93.5	95.8	13.0	12.0	2.3	-1.4
29	-	89.3	81.2	90.7	92.7	95.1	13.0	-	2.4	-
31	92.7	89.6	80.6	90.1	92.2	94.6	15.5	14.0	2.5	-1.3
33	92.7	89.5	80.5	90.1	92.4	94.8	15.5	14.0	2.4	-1.4
35	92.7	89.4	80.8	89.5	92.1	94.3	14.5	13.5	2.4	-1.3
37	93.0	89.8	80.9	90.3	92.6	95.1	15.5	13.5	2.5	-1.4
39	92.6	89.5	80.9	90.2	92.7	94.9	17.0	14.0	2.3	-1.3
41	92.7	89.3	80.7	90.3	92.9	95.3	14.5	13.0	2.4	-1.4
Avg.	92.8	89.5	80.9	90.3	92.7	95.1	14.8	12.0	2.4	-1.4
Std Dv	0.3	0.2	0.3	0.4	0.4	0.5	1.2	4.3	0.1	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC

10/16/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 24, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

500 FT. FLYBY - TARGET INDICATED AIRSPEED 87 KTS

21	87.7	84.8	74.3	83.9	84.2	87.2	26.5	27.0	1.0	-1.0
22	87.3	84.2	73.8	89.0	85.6	86.9	26.5	30.0	1.2	-0.9
46	86.4	83.7	75.1	88.3	84.4	87.1	23.0	23.5	0.7	-0.8
47	87.6	85.1	75.2	82.8	85.9	87.2	34.0	26.5	1.6	-0.9

Avg.	87.2	84.5	74.6	86.0	86.1	87.1	27.5	26.7	1.1	-0.9
Std Dv	0.6	0.6	0.7	3.1	0.3	0.2	4.6	2.7	0.4	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 102 KTS

51	88.7	85.5	75.3	86.6	87.4	88.8	23.0	21.5	1.9	-1.2
52				NO DATA						
53	88.1	85.0	74.8	86.6	87.1	88.3	24.5	24.0	1.2	-1.2
56	87.2	84.0	75.2	88.9	87.2	88.3	23.5	22.5	1.1	-1.1

Avg.	88.0	84.8	75.1	87.4	87.2	88.5	23.7	22.7	1.4	-1.1
Std Dv	0.8	0.8	0.2	1.3	0.2	0.3	0.8	1.3	0.4	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 116 KTS

54	89.4	86.1	75.6	89.5	87.6	88.9	24.0	24.0	2.2	-1.3
55	89.3	86.2	76.6	88.7	88.4	89.7	26.5	26.0	1.3	-1.1
57	89.7	86.7	76.0	88.4	87.9	89.2	23.0	21.5	1.2	-1.1
58	88.0	84.7	75.3	89.2	87.3	88.7	19.5	20.0	1.6	-1.1

Avg.	89.1	85.9	75.9	88.9	87.8	89.1	23.2	22.9	1.6	-1.2
Std Dv	0.8	0.8	0.6	0.5	0.5	0.4	2.9	2.7	0.4	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS

17	90.4	87.7	79.3	91.6	90.3	92.5	17.5	17.5	2.2	-1.3
18	91.0	88.0	77.6	91.2	89.1	91.3	23.5	21.0	2.2	-1.3
19	90.4	87.7	78.3	91.2	89.2	90.2	20.5	20.0	1.1	-1.3
20	91.9	88.7	79.8	92.2	90.3	92.6	25.5	25.5	2.3	-1.5
62	90.4	87.1	76.8	91.9	88.2	90.1	18.5	18.5	2.3	-1.5
63	90.1	87.3	78.0	92.6	89.6	90.5	19.0	19.0	0.9	-1.1

Avg.	90.7	87.7	78.3	91.8	89.4	91.2	20.7	20.2	1.8	-1.3
Std Dv	0.7	0.6	1.1	0.6	0.8	1.1	3.1	2.8	0.6	0.2

500 FT. FLYBY - TARGET INDICATED AIRSPEED 145 KTS

48	93.9	89.9	81.1	94.9	92.9	95.7	14.5	13.5	2.8	-1.8
49	92.9	89.7	80.2	94.3	91.8	93.3	18.0	17.5	2.6	-1.4
50	94.3	90.3	81.2	97.7	93.5	96.2	19.0	17.5	2.7	-1.8
59	92.8	89.6	80.0	96.2	92.1	93.0	18.0	18.0	1.3	-1.2
60	93.5	89.5	81.9	97.0	92.6	95.5	14.5	14.0	2.9	-1.8
61	92.7	89.7	79.9	95.1	91.5	93.1	19.5	18.5	1.6	-1.3

Avg.	93.3	89.8	80.7	96.2	92.4	94.5	17.2	16.5	2.3	-1.5
Std Dv	0.6	0.3	0.8	1.3	0.7	1.5	2.2	2.2	0.7	0.3

TABLE NO. A.3-3.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
10/16/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS										
9	91.2	88.5	79.8	92.1	90.8	91.5	17.0	18.0	1.0	-0.9
10	92.0	88.5	79.2	94.7	91.0	92.6	18.0	17.5	1.7	-1.4
15	90.7	87.8	79.0	91.4	90.5	91.7	15.0	15.0	2.2	-0.9
16	89.9	86.9	77.8	89.2	89.5	91.7	17.0	16.5	2.2	-1.3
Avg.	91.0	87.9	79.0	91.9	90.4	91.9	16.7	16.7	1.8	-1.1
Std Dev	0.9	0.8	0.8	2.3	0.7	0.5	1.3	1.3	0.6	0.3

700 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS

7	89.6	86.8	76.7	89.5	88.6	90.1	20.5	20.0	1.5	-1.4
8	90.4	87.4	76.6	90.7	87.9	89.5	24.5	23.0	1.6	-1.2
13	89.7	87.0	76.7	90.5	88.0	89.4	23.0	22.5	1.4	-1.4
14	89.9	86.9	77.3	89.8	87.2	89.1	24.5	25.0	2.2	-1.3
Avg.	89.9	87.0	76.8	90.1	87.9	89.5	23.1	22.6	1.7	-1.3
Std Dev	0.4	0.3	0.3	0.5	0.6	0.4	1.9	2.1	0.4	0.1

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS

2	89.6	86.7	74.8	88.6	86.0	88.1	33.5	31.5	2.2	-1.4
3	88.1	85.2	75.2	87.4	87.1	89.1	24.5	20.5	1.9	-1.5
4	88.9	86.1	73.9	88.4	85.2	87.1	35.5	30.5	2.0	-1.2
42	88.2	85.2	77.6	88.4	86.9	89.3	19.5	25.5	2.4	-1.4
43	87.7	84.6	75.2	87.3	87.4	89.4	22.5	19.5	2.0	-1.4
44	88.0	85.2	73.4	87.2	85.0	87.0	33.0	26.5	2.1	-1.4
45	87.3	84.2	74.8	86.8	86.9	89.2	19.5	17.5	2.3	-1.4
Avg.	88.2	85.3	75.0	87.7	86.3	88.4	26.9	24.5	2.1	-1.4
Std Dev	0.8	0.8	1.3	0.7	1.0	1.0	6.9	5.5	0.2	0.1

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS

5	84.9	82.3	71.5	85.0	83.5	85.6	35.5	25.0	2.1	-1.4
6	87.8	84.8	72.6	87.2	84.3	86.5	40.0	33.5	2.2	-1.5
11	84.8	82.2	70.9	84.2	83.2	85.7	39.5	25.0	2.5	-1.3
12	87.2	84.3	72.4	86.4	83.4	85.6	35.5	29.5	2.2	-1.5
Avg.	86.2	83.4	71.8	85.7	83.6	85.9	37.6	28.2	2.3	-1.4
Std Dev	1.6	1.3	0.8	1.3	0.5	0.4	2.5	4.1	0.2	0.1

TABLE NO. A.3-1.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
11/18/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
24	93.6	90.7	79.2	87.6	91.8	92.9	34.0	33.5	1.1	-1.1
26	94.9	92.5	84.3	87.8	93.9	95.7	23.0	24.0	1.7	-1.1
28	95.2	92.9	82.2	88.8	93.3	94.5	28.5	21.5	1.3	-1.1
32	95.4	92.9	82.6	87.9	93.1	95.1	26.5	26.5	2.0	-1.3
34	94.7	92.3	82.5	87.7	93.1	94.6	21.0	22.0	1.5	-1.0
36	93.1	90.5	79.3	85.9	90.9	91.9	32.5	29.0	1.0	-0.9
38	93.6	91.0	82.1	87.9	93.3	95.0	25.5	22.5	1.6	-1.1
40	92.8	90.0	78.8	87.1	90.5	91.7	42.0	39.0	1.2	-1.1
64	90.2	86.9	77.9	86.5	89.9	91.2	21.5	20.0	1.3	-0.9
Avg.	93.7	91.1	81.0	87.5	92.2	93.6	28.3	26.4	1.4	-1.1
Std Dv	1.6	1.9	2.2	0.9	1.5	1.7	6.9	6.3	0.3	0.1
TAKEOFF										
23	92.8	89.4	80.9	92.6	93.9	95.4	15.0	13.5	1.6	-1.1
25	92.9	89.6	80.0	92.6	92.0	93.5	16.0	14.5	1.6	-1.0
27	92.3	89.1	80.3	92.6	92.4	94.0	15.0	13.5	1.6	-1.0
29	91.9	88.5	79.6	92.1	91.7	93.0	14.5	14.0	1.3	-1.1
31	92.7	89.4	80.0	92.5	92.3	94.0	16.0	14.5	1.8	-1.2
33	92.3	89.1	79.7	92.3	92.4	93.9	16.5	15.0	1.4	-1.1
35	92.9	89.6	81.0	92.6	93.4	95.0	15.0	14.0	1.6	-1.1
37	92.4	89.1	79.7	91.8	91.8	93.3	16.5	15.5	1.5	-1.2
39	92.5	89.4	79.9	92.0	91.8	93.2	17.0	14.5	1.5	-1.1
41	91.7	88.4	79.2	91.8	91.4	92.8	15.0	14.5	1.4	-1.1
Avg.	92.5	89.2	80.0	92.3	92.3	93.8	15.6	14.3	1.5	-1.1
Std Dv	0.4	0.4	0.6	0.4	0.8	0.8	0.7	0.6	0.1	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
11/18/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS										
21	87.6	84.4	73.9	89.4	85.8	87.3	24.5	24.5	1.4	-1.0
22	88.4	85.9	73.9	84.4	85.7	86.7	35.5	35.0	1.1	-0.8
46	-	85.2	77.3	85.8	89.0	90.1	14.5	-	1.1	-
47	87.2	84.3	74.1	89.1	85.9	86.9	25.0	24.0	1.1	-0.9
Avm.	87.7	84.9	74.8	87.2	86.6	87.8	24.9	20.9	1.2	-0.9
Std Dv	0.6	0.8	1.7	2.5	1.6	1.6	8.6	14.8	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS										
51	87.9	85.1	74.7	87.5	86.6	87.5	28.5	28.0	0.9	-1.0
52	88.3	85.6	76.5	86.4	88.7	90.1	22.0	19.0	1.4	-0.8
53	86.9	83.8	74.0	86.9	85.7	86.5	26.0	26.0	0.8	-1.0
56	87.7	85.2	75.2	85.4	87.5	89.0	28.0	18.5	1.5	-0.7
Avm.	87.7	84.9	75.1	86.6	87.1	88.3	26.1	22.9	1.1	-0.8
Std Dv	0.6	0.8	1.1	0.9	1.3	1.6	3.0	4.8	0.4	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS										
54	89.7	87.2	76.7	87.9	88.6	90.2	24.0	23.0	1.6	-1.2
55	87.6	84.6	74.4	87.4	85.7	86.8	25.0	25.0	1.1	-1.2
57	86.9	83.9	73.8	87.4	85.5	86.9	23.5	22.0	2.1	-1.2
58	88.4	86.1	75.9	87.0	87.5	88.9	27.5	20.0	1.4	-0.7
Avm.	88.2	85.4	75.2	87.4	86.8	88.2	25.0	22.5	1.6	-1.1
Std Dv	1.2	1.5	1.3	0.4	1.5	1.7	1.8	2.1	0.4	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
17	90.8	87.5	78.0	91.7	90.4	92.5	18.0	15.5	2.3	-1.7
18	90.8	88.4	79.3	90.5	89.6	91.6	18.5	18.0	2.0	-1.0
19	90.8	87.4	80.0	91.3	92.1	94.5	13.5	12.0	2.4	-1.7
20	90.4	88.1	78.9	91.4	89.8	91.2	21.5	21.5	1.5	-1.0
62	90.2	87.7	77.9	91.1	89.5	90.7	20.5	19.0	1.2	-1.1
63	89.7	86.5	76.9	90.6	88.9	91.3	17.0	15.0	2.4	-1.6
Avm.	90.5	87.6	78.5	91.1	90.0	92.0	18.2	16.8	2.0	-1.3
Std Dv	0.4	0.6	1.1	0.5	1.1	1.4	2.8	3.4	0.5	0.3
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS										
48	93.5	90.9	82.8	95.0	93.7	96.0	17.0	16.5	2.4	-1.5
49	93.1	89.6	80.2	94.9	92.2	94.9	19.0	17.5	2.7	-1.8
50	91.2	88.1	78.9	95.3	89.4	91.7	18.0	18.0	2.3	-1.5
59	91.2	87.8	77.9	94.6	90.5	93.0	18.0	14.5	2.6	-1.5
60	92.7	89.8	80.2	94.2	91.4	93.8	19.0	18.5	2.4	-1.4
61	92.0	88.4	81.4	94.7	92.6	95.4	12.0	11.0	2.8	-1.9
Avm.	92.3	89.1	80.2	94.8	91.6	94.2	17.2	16.0	2.5	-1.6
Std Dv	1.0	1.2	1.7	0.4	1.5	1.6	2.6	2.8	0.2	0.2

TABLE NO. A.3-3.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
11/18/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
9	90.6	87.2	78.3	92.5	89.9	91.9	14.0	13.5	2.5	-1.4
10	92.6	90.2	80.2	92.6	91.1	92.5	17.5	17.5	1.3	-1.1
15	90.6	87.2	79.1	91.9	91.1	93.6	16.5	14.0	2.5	-1.6
16	91.6	89.1	79.8	91.9	90.8	91.8	16.5	16.5	1.0	-1.0
Avg.	91.3	88.4	79.3	92.2	90.7	92.4	16.1	15.4	1.8	-1.3
Std Dv	0.9	1.5	0.8	0.4	0.6	0.8	1.5	1.9	0.8	0.3
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
7	89.9	86.4	76.7	88.7	89.0	91.4	19.0	17.0	2.5	-1.8
8	90.1	87.8	77.9	90.1	88.6	90.3	24.5	24.0	1.7	-1.1
13	90.1	86.6	79.0	89.8	88.9	91.7	15.0	17.0	2.8	-1.7
14	89.6	87.2	76.9	89.5	87.6	89.2	26.0	25.5	1.6	-1.1
Avg.	89.9	87.0	77.6	89.5	88.5	90.7	21.1	20.9	2.1	-1.4
Std Dv	0.3	0.6	1.0	0.6	0.6	1.1	5.1	4.5	0.6	0.4
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
2	89.4	86.7	74.5	88.3	86.5	88.5	34.0	31.5	2.0	-1.4
3	88.5	85.1	75.5	86.3	87.1	89.6	20.5	19.0	2.5	-1.9
4	88.7	86.0	74.3	88.2	86.2	88.1	32.5	29.5	1.9	-1.3
42	89.6	86.7	76.2	87.9	87.3	89.3	34.0	33.5	2.0	-1.6
43	89.6	86.2	76.6	86.6	86.9	89.6	20.5	20.5	2.8	-1.8
44	88.3	85.3	75.2	86.8	87.1	88.9	25.0	23.0	1.8	-1.3
45	88.7	85.4	75.6	85.9	86.0	88.7	25.5	25.0	2.7	-1.6
Avg.	89.0	85.9	75.4	87.1	86.7	89.0	27.4	26.0	2.2	-1.5
Std Dv	0.5	0.7	0.8	1.0	0.5	0.6	6.0	5.6	0.4	0.2
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
5	85.7	82.6	71.4	82.2	82.5	84.6	29.5	27.5	2.6	-1.6
6	87.1	84.3	71.7	85.5	83.5	85.5	37.0	28.0	2.1	-1.4
11	85.0	81.9	70.3	81.3	81.8	83.9	29.0	27.5	2.2	-1.6
12	87.1	84.2	72.1	85.4	82.5	84.7	34.5	33.5	2.2	-1.5
Avg.	86.2	83.3	71.4	83.6	82.6	84.7	32.5	29.1	2.2	-1.6
Std Dv	1.0	1.2	0.8	2.2	0.7	0.6	3.9	2.9	0.2	0.1

TABLE NO. A.3-1.50

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/29/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

24	96.1	93.6	82.9	88.5	94.4	95.4	33.0	32.5	1.0	-0.6
26	96.8	94.9	84.9	88.3	95.2	96.7	25.0	25.0	1.4	-0.5
28	97.5	95.4	85.0	90.4	96.4	97.1	21.5	22.0	0.7	-0.5
32	97.8	95.6	85.6	90.2	97.4	98.7	23.5	21.0	1.3	-0.7
34	98.0	95.7	86.2	89.4	97.8	99.1	20.0	19.5	1.3	-0.5
36	95.6	93.4	82.8	88.6	94.4	95.1	26.0	25.0	0.8	-0.6
38	96.5	94.0	84.8	89.5	96.2	97.5	25.5	23.0	1.3	-0.6
40	95.6	93.1	82.4	88.1	93.8	94.4	38.5	39.0	0.6	-0.5
64	93.5	90.5	81.6	87.9	93.2	93.9	17.5	21.0	0.7	-0.4

Avg.	96.4	94.0	84.0	89.0	95.4	96.4	25.6	25.3	1.0	-0.5
Std Dev	1.4	1.6	1.6	0.9	1.6	1.8	6.5	6.4	0.3	0.1

TAKEOFF

23	96.1	93.0	85.2	92.7	97.2	98.6	12.0	12.0	1.4	-0.9
25	95.8	92.2	83.4	92.2	95.9	97.4	13.5	12.5	1.5	-0.8
27	95.0	91.5	83.6	92.3	95.9	97.4	13.0	12.5	1.5	-0.8
29	-	89.7	82.5	91.8	94.6	95.9	9.5	-	1.3	-
31	95.9	92.7	84.2	92.5	96.3	97.6	13.5	13.0	1.3	-0.7
33	95.8	92.7	84.4	92.4	96.3	97.8	14.0	13.0	1.5	-0.7
35	96.2	92.7	84.7	92.8	96.8	98.2	12.5	13.0	1.7	-0.8
37	95.6	92.3	84.0	91.9	96.2	97.6	13.5	13.0	1.4	-0.8
39	96.0	92.6	84.8	92.2	97.1	98.5	12.5	12.5	1.4	-0.8
41	95.6	92.3	83.5	92.0	95.6	96.9	13.5	13.5	1.3	-0.7

Avg.	95.8	92.2	84.0	92.3	96.2	97.6	12.7	11.5	1.4	-0.8
Std Dev	0.3	0.9	0.8	0.3	0.8	0.8	1.3	4.1	0.1	0.1

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A-3-2.50

AUGUSTA A-109 HELICOPTER (ITALIAN)

DDI/TSL
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS										
21	90.4	87.3	78.6	88.8	89.9	90.5	19.5	23.0	0.5	-0.8
22	91.5	88.7	77.9	85.1	89.5	90.8	27.5	27.0	1.3	-0.7
46	92.2	89.2	80.8	86.9	92.6	94.0	20.0	17.0	1.4	-0.7
47	90.4	87.6	78.6	88.7	90.1	91.0	19.0	19.0	0.9	-0.7
Avg.	91.1	88.2	79.0	87.4	90.5	91.6	21.5	21.5	1.0	-0.7
Std Dv	0.9	0.9	1.2	1.7	1.4	1.6	4.0	4.4	0.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS										
51	90.5	87.8	78.8	87.6	90.0	91.2	19.0	19.5	1.2	-0.8
52	91.9	89.1	79.9	87.5	92.2	93.5	19.0	17.0	1.2	-0.8
53	NO DATA									
56	91.3	88.4	79.1	86.7	90.7	92.1	18.0	17.5	1.4	-0.8
Avg.	91.2	88.4	79.3	87.3	91.0	92.3	18.7	18.0	1.2	-0.8
Std Dv	0.7	0.7	0.6	0.5	1.1	1.2	0.6	1.3	0.1	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS										
54	NO DATA									
55	90.7	87.7	79.0	87.7	89.9	90.7	16.5	21.5	0.9	-1.0
57	90.2	87.4	78.8	87.6	89.7	90.7	19.5	20.0	0.9	-0.9
58	91.7	89.1	80.3	87.9	91.7	93.0	19.0	18.0	1.3	-0.8
Avg.	90.9	88.1	79.4	87.8	90.5	91.5	18.3	19.8	1.1	-0.9
Std Dv	0.8	0.9	0.8	0.2	1.1	1.3	1.6	1.8	0.2	0.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
17	94.1	90.9	82.9	92.1	94.5	96.0	15.0	15.0	1.4	-1.4
18	93.7	91.0	82.2	91.0	93.2	94.2	16.5	16.0	1.0	-0.7
19	94.4	91.4	83.5	92.2	94.9	97.2	13.0	13.0	2.3	-1.4
20	94.1	91.3	83.2	92.0	94.5	95.6	15.5	14.0	1.1	-0.7
62	93.3	90.5	81.7	91.8	93.4	94.2	15.5	16.0	0.8	-0.9
63	93.4	90.4	81.6	91.4	92.8	94.9	14.5	14.0	2.2	-1.1
Avg.	93.8	90.9	82.5	91.8	93.9	95.3	15.0	14.7	1.5	-1.0
Std Dv	0.4	0.4	0.8	0.5	0.9	1.2	1.2	1.2	0.7	0.3
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS										
48	96.1	93.1	84.9	95.3	96.8	97.7	13.5	12.5	1.1	-1.0
49	95.7	92.5	83.6	94.8	95.5	98.1	17.0	13.5	2.5	-1.4
50	95.7	92.7	85.0	95.7	96.5	97.1	13.5	13.5	0.9	-0.9
59	94.6	91.3	83.3	94.5	95.1	97.3	13.5	12.5	2.2	-1.5
60	95.4	92.3	83.8	94.3	96.4	97.8	13.5	12.5	1.3	-1.0
61	95.2	91.8	83.8	94.8	95.3	98.0	11.0	10.5	2.7	-1.5
Avg.	95.5	92.3	84.1	94.9	96.0	97.7	13.7	12.5	1.8	-1.2
Std Dv	0.5	0.7	0.7	0.5	0.7	0.4	1.9	1.1	0.8	0.3

TABLE NO. A.3-3.50

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/29/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
9	94.0	90.6	82.8	92.1	94.5	96.1	12.0	12.5	1.8	-1.2
10	95.2	92.0	85.1	92.4	96.7	97.6	13.5	14.0	0.9	-0.8
15	94.0	90.5	82.5	91.8	95.3	97.5	14.0	10.5	2.2	-1.2
16	94.8	91.5	84.1	92.4	96.3	97.4	12.5	13.0	1.1	-0.9
Avg.	94.5	91.2	83.6	92.2	95.7	97.1	13.0	12.5	1.5	-1.0
Std Dv	0.6	0.7	1.2	0.3	1.0	0.7	0.9	1.5	0.6	0.2

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

7	92.9	89.9	80.4	89.4	91.9	93.2	16.0	17.5	2.1	-1.3
8	92.8	90.1	80.4	90.1	92.1	93.0	24.5	23.5	0.9	-0.9
13	93.6	90.6	81.8	90.5	93.7	95.5	14.5	14.0	1.8	-1.4
14	92.2	89.6	80.1	89.4	91.2	92.6	20.5	19.5	1.4	-0.8
Avg.	92.9	90.0	80.7	89.8	92.2	93.6	18.9	18.6	1.6	-1.1
Std Dv	0.6	0.4	0.8	0.5	1.0	1.3	4.5	4.0	0.5	0.3

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

	NO DATA									
1										
2	91.5	88.9	77.8	88.1	89.3	90.7	29.5	25.5	1.4	-1.0
3	91.7	88.8	78.7	87.6	90.0	91.9	20.5	19.5	2.6	-1.5
4	91.4	88.8	78.1	88.0	89.4	90.9	26.5	25.5	1.6	-0.9
42	92.1	89.1	79.5	87.9	91.1	92.5	22.0	22.5	1.4	-1.1
43	92.6	89.7	79.4	87.2	89.8	92.2	21.0	20.5	2.7	-1.6
44	90.9	88.2	78.4	87.0	90.0	91.5	20.5	19.5	1.5	-1.0
45	92.1	89.0	79.0	86.9	90.1	92.0	25.5	25.0	2.6	-1.5
Avg.	91.8	88.9	78.7	87.5	90.0	91.7	23.6	22.6	2.0	-1.2
Std Dv	0.6	0.4	0.6	0.5	0.6	0.7	3.5	2.8	0.6	0.3

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

5	88.8	86.2	75.9	83.9	86.8	88.3	25.0	24.0	1.6	-1.1
6	89.6	87.0	74.7	85.8	86.3	88.0	31.5	29.5	1.7	-1.1
11	88.1	85.5	75.5	82.9	86.1	87.6	26.5	26.5	1.5	-1.1
12	89.3	86.6	74.1	85.2	85.7	87.4	34.0	32.0	1.8	-1.1
Avg.	89.0	86.3	75.1	84.5	86.2	87.8	29.2	28.0	1.6	-1.1
Std Dv	0.7	0.6	0.8	1.3	0.5	0.4	4.2	3.5	0.1	0.0

TABLE NO. A.3-1.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: A

SIDELINE-284M. NORTH

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	CASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
24	91.3	89.0	78.7	88.7	90.3	92.3	28.5	25.0	2.0	-0.4
26	91.6	88.6	73.8	88.6	90.6	92.6	27.0	24.0	2.2	-1.2
28	89.4	87.1	75.2	86.5	86.9	87.7	40.5	40.5	0.8	-0.5
32	88.5	86.1	73.4	86.3	84.8	86.1	41.0	41.0	1.8	-0.5
34	88.6	86.3	74.8	86.1	86.8	87.4	43.0	38.5	0.7	-0.5
36	90.1	87.9	76.8	86.2	88.6	89.4	33.0	32.0	0.9	-0.5
38	89.0	86.3	75.0	85.2	85.0	87.3	36.0	36.0	2.4	-0.8
40	90.1	88.1	77.9	86.4	88.4	89.0	25.0	28.0	0.6	-0.4
64	87.8	86.1	77.9	86.8	89.3	90.2	23.0	15.0	0.9	-0.4
Avg.	89.6	87.3	76.5	86.8	87.9	89.1	33.0	31.3	1.4	-0.6
Std Dv	1.3	1.2	2.0	1.2	2.1	2.3	7.5	8.6	0.7	0.3
TAKEOFF										
23	88.6	86.0	76.8	84.7	87.6	89.1	21.5	21.5	1.6	-1.0
25	89.1	86.3	77.9	84.8	88.2	90.4	18.5	18.5	2.2	-0.8
27	88.5	85.9	76.5	84.4	87.2	89.3	25.0	20.5	2.1	-0.7
29	-	85.1	76.2	84.6	87.5	89.2	18.5	-	1.7	-
31	88.9	86.3	76.7	84.5	87.9	89.6	20.5	17.5	1.8	-1.1
33	88.8	86.2	75.5	83.8	86.4	88.3	23.5	23.5	2.0	-1.1
35	88.4	85.9	75.9	84.1	87.1	89.0	22.0	18.5	1.9	-0.8
37	89.5	87.2	77.4	84.8	88.1	90.1	22.5	19.5	2.0	-0.9
39	89.1	86.7	76.3	84.9	87.7	89.4	24.0	21.0	1.7	-0.8
41	88.6	86.0	76.4	85.1	87.6	89.3	18.5	18.0	1.7	-1.0
Avg.	88.8	86.1	76.6	84.6	87.5	89.4	21.4	17.8	1.9	-0.9
Std Dv	0.3	0.5	0.7	0.4	0.5	0.6	2.4	6.5	0.2	0.1

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE
PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE-284M. NORTH

JUNE 24, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS										
21					NO DATA					
22	83.7	81.0	69.9	85.1	81.1	82.6	39.5	37.0	1.9	-0.8
46	83.5	80.7	70.3	84.9	81.7	83.2	34.5	29.0	1.6	-0.8
47	85.7	83.4	73.5	80.7	84.0	85.6	39.5	35.0	1.8	-0.7
Avm.	84.3	81.7	71.2	83.5	82.3	83.8	37.8	33.7	1.8	-0.8
Std Dv	1.2	1.5	2.0	2.5	1.5	1.6	2.9	4.2	0.2	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS										
51	84.7	82.2	71.2	82.0	81.3	83.3	32.5	32.0	2.4	-0.8
52	83.4	80.6	69.2	84.8	80.6	82.2	37.0	36.5	1.6	-1.1
53	85.2	82.7	70.5	82.2	82.3	83.6	39.0	36.5	1.3	-0.8
56	-	80.3	68.9	84.5	80.6	82.5	35.0	-	1.9	-
Avm.	84.4	81.4	70.0	83.4	81.2	82.9	35.9	26.2	1.8	-0.9
Std Dv	1.0	1.2	1.1	1.5	0.8	0.7	2.8	17.6	0.5	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS										
54	85.0	82.0	71.6	85.3	81.7	83.8	26.0	26.0	2.4	-1.3
55	-	83.2	72.6	84.4	83.3	84.7	29.5	-	1.4	-
57	85.3	82.8	71.4	83.9	82.2	83.6	32.5	32.0	1.4	-0.8
58	84.1	81.1	69.2	84.9	80.7	82.9	31.5	30.0	2.2	-1.1
Avm.	84.8	82.3	71.2	84.6	82.0	83.7	29.9	22.0	1.9	-1.1
Std Dv	0.6	0.9	1.4	0.6	1.1	0.7	2.9	14.9	0.5	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS										
17	87.9	85.6	76.1	87.9	86.7	88.9	24.5	23.0	2.2	-0.8
18	86.6	83.9	72.7	87.0	84.1	85.3	29.5	27.0	2.0	-1.0
19	88.4	85.9	74.9	88.0	85.9	87.0	26.0	26.5	1.1	-0.9
20	87.4	84.6	73.7	88.6	84.8	87.2	29.0	24.5	2.4	-1.0
62	85.8	82.7	72.3	87.4	83.3	85.4	25.0	24.5	2.6	-1.3
63	88.8	86.4	75.7	89.7	86.6	88.0	24.5	24.5	1.5	-0.8
Avm.	87.5	84.8	74.2	88.1	85.2	87.0	26.4	25.0	2.0	-1.0
Std Dv	1.1	1.4	1.6	0.9	1.4	1.4	2.3	1.5	0.6	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS										
48	89.7	86.0	76.4	91.9	89.0	91.5	21.0	16.0	2.5	-1.6
49	91.2	88.7	81.8	90.1	91.8	94.3	18.0	17.0	2.5	-1.3
50	88.9	84.8	76.8	91.4	87.4	90.4	20.0	19.0	3.0	-1.7
59	89.4	86.9	76.8	91.4	88.3	89.3	26.0	22.0	1.3	-0.8
60	88.6	84.8	73.4	92.1	85.9	88.5	25.0	19.5	2.7	-1.7
61	89.1	86.6	76.9	90.6	87.9	88.9	24.5	21.5	1.0	-0.9
Avm.	89.5	86.3	77.0	91.2	88.4	90.5	22.7	19.2	2.2	-1.3
Std Dv	0.9	1.5	2.7	0.8	2.0	2.2	3.5	2.4	0.8	0.4

TABLE NO. A.3-3.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE-284M. NORTH

JUNE 24, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

9	88.1	85.6	75.3	85.3	86.5	88.3	22.5	21.5	1.7	-1.1
10	87.0	83.8	73.7	87.6	85.4	86.6	22.5	22.5	1.3	-1.2
15	88.3	85.7	75.4	85.9	86.9	88.6	25.0	20.5	1.7	-0.9
16	87.3	84.2	74.4	87.6	85.8	88.3	22.5	19.0	2.5	-1.1
Avg.	87.7	84.8	74.7	86.6	86.1	87.9	23.1	20.9	1.8	-1.0
Std Dv	0.6	1.0	0.8	1.2	0.7	0.9	1.2	1.5	0.5	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

7	86.9	84.1	72.8	86.0	84.1	85.9	27.5	25.0	1.8	-1.2
8	86.5	83.6	72.7	86.9	83.6	85.4	32.5	32.5	1.8	-1.0
13	87.0	84.2	74.6	87.2	85.7	87.6	23.5	23.0	1.9	-1.3
14	86.8	83.9	72.4	87.1	83.7	85.9	35.5	35.0	2.1	-1.4
Avg.	86.8	84.0	73.1	86.8	84.3	86.2	29.7	28.9	1.9	-1.2
Std Dv	0.2	0.3	1.0	0.5	1.0	0.9	5.3	5.8	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

1	-	80.2	70.7	86.8	81.6	83.1	16.0	-	2.2	-
2	86.0	83.2	70.1	86.0	81.5	83.3	42.0	40.0	2.2	-1.4
3	85.6	82.9	71.3	85.3	81.9	84.4	31.0	30.0	2.5	-1.4
4	85.7	82.9	70.6	85.3	82.1	83.2	35.5	35.0	0.9	-1.1
42	86.4	83.4	71.7	87.3	83.1	85.6	38.5	27.5	2.5	-1.4
43	86.6	84.3	73.4	86.5	84.3	86.7	34.0	26.0	2.4	-1.3
44	86.7	84.0	74.8	86.5	85.9	88.2	31.5	29.0	2.3	-1.2
45	87.1	84.3	76.8	86.5	87.2	89.7	23.0	22.0	2.5	-1.4
Avg.	86.3	83.2	72.4	86.3	83.4	85.5	31.4	26.2	2.2	-1.3
Std Dv	0.6	1.3	2.4	0.7	2.2	2.5	8.4	11.9	0.5	0.1

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

5	-	80.4	67.6	84.2	78.9	80.4	36.5	-	1.5	-
6	85.4	82.5	71.8	84.7	83.0	85.5	32.5	28.0	2.5	-1.3
11	83.6	80.8	68.8	83.5	79.9	82.1	42.5	40.0	2.6	-1.1
12	85.6	82.5	69.9	84.8	81.1	83.7	44.5	42.5	2.6	-1.5
Avg.	84.9	81.6	69.5	84.3	80.7	82.9	39.0	27.6	2.3	-1.3
Std Dv	1.1	1.1	1.8	0.6	1.7	2.2	5.5	19.5	0.5	0.2

TABLE NO. A.4-1.1

BIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
9/16/80

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

40	95.9	93.0	84.3	93.1	96.4	97.2	14.5	14.0	0.9	-0.7
42	97.7	94.9	88.6	94.6	99.5	100.7	10.0	11.5	1.6	-0.7
44	97.1	94.3	86.0	93.4	97.7	98.2	16.5	17.0	0.5	-0.6
46	97.5	94.6	85.7	94.2	97.9	98.6	21.5	21.5	0.8	-0.7
48	96.4	94.0	85.7	93.6	97.4	98.0	21.5	19.0	0.6	-0.6
50	97.9	95.1	88.0	94.4	99.4	100.3	12.5	14.0	0.9	-0.7
Avg.	97.1	94.3	86.4	93.9	98.0	98.8	16.1	16.2	0.9	-0.7
Std Dv	0.8	0.8	1.6	0.6	1.2	1.4	4.7	3.7	0.4	0.1

TAKEOFF

41	90.0	86.5	79.0	85.0	90.9	93.0	11.0	10.5	1.9	-1.6
43	89.1	85.5	77.5	81.8	89.1	90.8	12.5	12.5	2.0	-1.6
45	89.2	86.0	77.9	83.6	89.7	91.6	11.5	11.0	2.3	-1.6
47	88.9	85.6	77.7	83.3	89.8	91.7	13.0	12.5	2.2	-1.5
49	89.2	85.9	78.3	83.3	89.9	91.8	11.5	11.5	2.1	-1.5
51	89.3	86.3	78.5	83.3	90.1	92.2	12.5	10.5	1.9	-1.5
Avg.	89.3	86.0	78.2	83.4	89.9	91.9	12.0	11.4	2.1	-1.6
Std Dv	0.4	0.4	0.6	1.0	0.6	0.7	0.8	0.9	0.2	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

18	89.1	86.3	78.6	84.1	90.4	91.6	13.0	12.5	1.2	-1.0
19	88.0	85.2	78.5	83.9	90.5	91.9	10.5	10.0	1.5	-1.0
20	89.5	86.5	78.8	84.6	90.5	91.9	14.0	13.0	1.4	-1.1
21	88.5	85.6	79.2	84.8	91.0	92.3	9.0	8.5	1.3	-0.8
22	89.8	87.0	80.2	84.8	91.9	93.1	13.5	12.0	1.2	-1.0
23	87.5	84.7	77.3	83.6	88.9	90.3	11.5	10.0	1.4	-1.0
Avg.	88.7	85.9	78.8	84.3	90.5	91.8	11.9	11.0	1.3	-1.0
Std Dv	0.9	0.9	1.0	0.5	1.0	0.9	1.9	1.8	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

24	88.9	85.9	79.5	85.7	90.9	92.3	10.5	11.0	1.4	-1.2
25	88.1	85.2	79.8	87.6	91.3	93.1	7.5	7.0	1.8	-1.2
26	89.7	86.8	80.5	86.2	91.7	93.2	10.5	10.5	1.5	-1.1
27	88.6	85.9	80.2	87.0	91.8	93.4	9.0	8.0	1.6	-1.2
28	90.0	86.9	80.1	86.2	91.6	93.2	11.5	11.0	1.7	-1.2
29	88.6	85.7	79.0	86.2	91.1	92.1	10.5	10.0	1.0	-1.0
Avg.	89.0	86.1	79.9	86.5	91.4	92.9	9.9	9.6	1.5	-1.1
Std Dv	0.7	0.6	0.5	0.7	0.4	0.5	1.4	1.7	0.3	0.1

TABLE NO. A.4-2.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/16/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

10	92.5	89.6	84.8	96.7	96.2	97.8	7.0	6.5	1.5	-0.9
11	92.1	89.2	85.2	95.8	96.9	98.4	5.0	5.0	1.5	-1.0
16	94.4	91.1	86.1	96.4	98.0	99.8	6.5	6.5	1.8	-1.1
17	91.4	88.4	84.3	95.3	95.6	97.4	5.5	6.0	1.7	-1.1
Avg.	92.6	89.6	85.1	96.1	96.7	98.3	6.0	6.0	1.6	-1.0
Std Dv	1.3	1.1	0.8	0.6	1.0	1.0	0.9	0.7	0.1	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

8	89.7	87.3	80.2	91.9	90.7	92.2	12.0	12.5	1.6	-1.0
9	87.4	85.0	78.2	91.6	89.0	90.1	10.0	11.5	1.2	-0.9
14	88.2	85.6	77.9	90.5	88.9	90.2	13.0	14.0	1.4	-1.0
15	86.5	83.9	77.1	91.0	88.2	89.5	10.0	12.0	1.3	-1.1
Avg.	87.9	85.5	78.4	91.3	89.2	90.5	11.2	12.5	1.4	-1.0
Std Dv	1.3	1.4	1.3	0.6	1.1	1.2	1.5	1.1	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

1	85.3	82.9	74.7	86.7	85.1	86.6	13.5	16.0	1.6	-1.0
2	86.7	84.4	75.1	88.6	85.4	86.6	22.5	24.0	1.2	-0.9
3	85.6	83.6	76.2	89.5	85.8	87.2	14.0	14.5	1.4	-1.1
4	86.6	84.5	75.9	88.9	85.9	87.4	17.0	17.5	1.5	-1.0
52	86.1	84.0	74.9	88.6	85.1	86.6	20.0	20.0	1.5	-0.9
53	83.6	81.8	73.5	88.3	84.2	85.4	15.5	15.5	1.2	-0.7
54	86.4	84.4	76.3	88.1	86.6	87.9	19.5	20.0	1.3	-1.0
55	85.2	83.3	75.8	88.4	86.2	87.3	12.0	12.5	1.1	-0.9
Avg.	85.7	83.6	75.3	88.6	85.5	86.9	16.7	17.5	1.4	-0.9
Std Dv	1.0	0.9	0.9	0.4	0.7	0.7	3.7	3.7	0.2	0.1

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/17/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	81.5	79.6	69.9	85.6	80.4	81.6	20.5	22.5	1.4	-0.9
6	83.5	81.7	71.3	84.6	81.4	83.0	29.0	28.5	1.5	-0.9
7	81.4	79.8	70.3	85.4	80.4	81.8	19.5	20.5	1.3	-1.0
12	84.1	82.0	72.2	86.8	81.6	83.3	21.5	26.5	1.7	-1.0
13	81.1	79.4	70.5	86.6	80.2	81.8	17.0	19.0	1.7	-1.1
38	82.9	81.2	71.4	83.9	81.0	82.4	23.0	26.5	1.4	-1.0
39	81.5	79.9	70.0	82.8	80.2	81.6	20.5	19.5	1.4	-1.0
Avg.	82.3	80.5	70.8	85.1	80.7	82.2	21.6	23.3	1.5	-1.0
Std Dv	1.2	1.1	0.9	1.4	0.6	0.7	3.8	3.8	0.2	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

34	81.3	79.5	69.5	84.2	79.4	80.6	23.0	28.0	1.5	-1.0
35	80.2	78.6	69.1	83.0	78.5	80.0	23.0	26.0	1.5	-1.0
36	-	78.5	67.9	82.4	77.5	79.2	29.0	-	1.6	-
37	79.4	77.7	67.7	82.1	76.9	78.2	22.5	29.5	1.4	-0.9
Avg.	80.3	78.6	68.6	83.0	78.1	79.5	24.4	20.9	1.5	-1.0
Std Dv	1.0	0.8	0.9	0.9	1.1	1.0	3.1	14.0	0.1	0.0

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

30	-	76.8	64.8	81.6	74.6	75.9	37.0	-	1.3	-
31	-	75.5	64.0	82.0	73.8	74.9	31.5	-	1.4	-
32	79.4	77.9	66.7	81.6	75.8	77.2	33.5	36.5	1.6	-1.0
33	-	75.5	65.3	80.8	74.6	75.9	29.0	-	1.4	-
Avg.	79.4	76.4	65.2	81.5	74.7	76.0	32.7	9.1	1.4	-1.0
Std Dv	-	1.1	1.1	0.5	0.8	0.9	3.4	18.2	0.1	-

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.10

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107X

AS MEASURED *

SITE: 10			CENTERLINE-CENTER (FLUSH)					JUNE 25, 1980		
EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
40	100.3	97.3	88.4	95.9	100.1	101.0	15.5	15.5	0.9	-0.3
42	102.2	99.3	92.6	98.1	104.0	104.5	11.5	12.0	0.5	-0.6
44	101.4	98.4	90.7	97.5	102.4	102.8	13.5	16.5	0.5	-0.3
46	101.2	98.4	89.4	97.1	101.4	102.4	19.5	16.5	1.0	-0.2
48	100.6	97.9	89.6	97.0	101.6	102.2	18.0	16.5	0.9	-0.3
50	101.7	99.1	91.5	97.8	102.9	103.6	13.0	14.0	0.7	-0.4
Avg.	101.2	98.4	90.3	97.2	102.1	102.7	15.2	15.2	0.7	-0.3
Std Dv	0.7	0.8	1.5	0.8	1.3	1.2	3.1	1.8	0.2	0.1
TAKEOFF										
41	94.5	90.8	82.7	88.8	94.2	96.6	11.5	11.5	2.5	-1.3
43	94.0	90.3	82.8	86.6	94.3	96.1	11.5	12.5	1.8	-1.3
45	93.9	90.5	83.3	88.2	94.5	96.2	10.5	11.5	2.4	-1.3
47	93.6	90.1	82.5	87.9	94.0	96.0	12.5	13.0	2.3	-1.3
49	94.0	90.5	82.7	88.1	94.0	96.2	11.5	12.0	2.2	-1.2
51	94.1	90.8	83.0	87.8	94.1	96.5	12.5	12.5	2.4	-1.2
Avg.	94.0	90.5	82.8	87.9	94.2	96.2	11.7	12.2	2.3	-1.3
Std Dv	0.3	0.3	0.3	0.7	0.2	0.3	0.8	0.6	0.3	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS										
18	93.8	90.9	83.1	88.3	94.6	95.8	13.0	13.0	1.3	-0.7
19	91.7	89.0	82.6	87.8	94.6	95.7	10.0	10.0	1.2	-0.4
20	93.8	90.5	83.2	88.3	94.9	96.2	12.5	13.0	1.3	-0.8
21	92.4	89.7	83.3	88.4	94.8	95.8	8.5	9.5	0.8	-0.4
22	94.1	91.0	84.8	88.7	96.1	97.4	10.5	12.0	1.3	-0.6
23	91.5	88.9	81.9	87.4	93.4	94.4	10.0	10.0	0.9	-0.4
Avg.	92.9	90.0	83.2	88.2	94.7	95.9	10.7	11.2	1.1	-0.5
Std Dv	1.2	0.9	1.0	0.5	0.9	1.0	1.7	1.6	0.2	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS										
24	93.4	90.3	83.9	88.9	95.4	97.0	10.5	10.0	1.6	-0.9
25	92.5	89.9	84.8	90.3	96.2	97.7	7.0	7.0	1.5	-0.7
26	94.1	91.1	84.6	89.4	96.0	97.7	10.5	10.0	1.7	-0.8
27	93.0	90.3	84.9	90.0	96.1	97.5	8.5	9.0	1.4	-0.7
28	94.3	91.2	84.4	89.2	96.2	97.7	11.5	11.0	1.5	-1.0
29	92.6	89.9	84.1	89.2	95.9	97.2	8.0	8.0	1.3	-0.6
Avg.	93.3	90.4	84.5	89.5	95.9	97.5	9.3	9.2	1.5	-0.8
Std Dv	0.8	0.6	0.4	0.5	0.3	0.3	1.8	1.5	0.1	0.1

TABLE NO. A.4-2.10

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107 %

AS MEASURED *

SITE: 10

CENTERLINE-CENTER (FLUSH)

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
10	96.4	93.2	88.6	97.6	100.1	101.5	6.5	7.0	1.4	-0.7
11	95.9	93.1	89.3	97.6	100.7	101.8	5.0	6.0	1.1	-0.5
16	98.8	95.4	90.8	98.6	102.9	104.3	6.0	6.0	1.5	-0.9
17	95.7	92.8	88.8	97.2	100.3	101.6	5.5	6.0	1.4	-0.7
Avg.	96.7	93.6	89.4	97.7	101.0	102.3	5.7	6.2	1.3	-0.7
Std Dv	1.4	1.2	1.0	0.6	1.3	1.3	0.6	0.5	0.2	0.2

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

8	93.6	91.1	84.5	92.8	94.9	96.2	11.0	12.5	1.3	-0.7
9	91.2	89.0	82.7	92.8	93.9	95.0	9.5	10.0	1.2	-0.4
14	92.4	89.9	82.6	92.1	93.9	94.9	13.0	13.0	1.2	-0.6
15	90.9	88.5	82.4	92.6	93.8	95.0	9.0	10.0	1.1	-0.4
Avg.	92.0	89.6	83.1	92.6	94.1	95.3	10.6	11.4	1.2	-0.5
Std Dv	1.2	1.2	1.0	0.4	0.5	0.6	1.8	1.6	0.1	0.2

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

1	88.6	86.6	79.0	89.7	89.8	90.9	13.0	14.5	1.3	-0.5
2	90.1	87.8	79.4	89.6	90.3	91.3	17.0	20.5	1.0	-0.7
3	89.0	87.1	79.9	90.6	90.2	91.5	14.0	14.0	1.4	-0.5
4	90.5	88.4	80.1	90.2	90.5	91.8	16.5	17.5	1.5	-0.6
52	90.5	88.4	79.9	90.0	91.0	92.2	17.0	15.5	1.2	-0.6
53	88.3	86.5	78.4	89.4	89.2	90.2	15.5	15.5	1.0	-0.2
54	91.1	88.8	81.2	89.7	91.8	93.2	16.5	16.5	1.4	-0.6
55	89.8	88.0	81.3	90.1	92.2	93.2	11.0	11.0	1.0	-0.2
Avg.	89.7	87.7	79.9	89.9	90.6	91.8	15.1	15.6	1.2	-0.5
Std Dv	1.0	0.9	1.0	0.3	1.0	1.1	2.2	2.8	0.2	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.10

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 10

CENTERLINE-CENTER (FLUSH)

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	85.4	83.5	74.3	86.8	85.1	86.4	19.5	21.0	1.3	-0.5
6	87.3	85.5	75.2	86.1	85.2	86.4	28.5	30.0	1.2	-0.5
7	85.7	83.9	75.1	87.2	85.5	87.0	18.5	19.0	1.5	-0.5
12	87.8	85.9	76.9	87.9	86.6	88.1	20.5	21.5	1.5	-0.7
13	85.6	83.9	75.5	87.4	85.5	87.1	16.0	15.5	1.6	-0.5
38	87.5	85.8	76.3	85.9	86.5	87.9	23.5	23.0	1.4	-0.6
39	85.9	84.5	75.2	84.9	85.6	86.9	18.5	19.0	1.3	-0.4
Avg.	86.5	84.7	75.5	86.6	85.7	87.1	20.7	21.3	1.4	-0.5
Std Dv	1.0	1.0	0.9	1.1	0.6	0.7	4.1	4.5	0.1	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

34	86.0	84.1	74.5	85.5	84.6	85.8	21.0	24.5	1.3	-0.6
35	84.6	83.1	74.4	84.6	84.0	85.5	19.5	23.5	1.5	-0.4
36	84.8	82.9	72.3	84.0	82.5	84.0	29.5	32.0	1.5	-0.7
37	84.2	82.5	72.9	84.0	82.7	84.0	21.0	22.5	1.3	-0.4
Avg.	84.9	83.1	73.5	84.5	83.4	84.8	22.7	25.6	1.4	-0.5
Std Dv	0.8	0.7	1.1	0.7	1.0	1.0	4.6	4.3	0.1	0.1

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

30	82.7	81.1	69.5	82.6	78.8	80.5	37.5	39.0	1.7	-0.7
31	81.3	79.7	68.7	82.6	78.6	79.8	29.5	34.0	1.3	-0.6
32	83.8	82.2	71.9	82.8	81.2	82.4	28.5	35.5	1.2	-0.6
33	82.2	80.3	70.2	82.4	79.9	81.2	28.5	33.0	1.3	-0.3
Avg.	82.5	80.8	70.1	82.6	79.6	81.0	31.0	35.4	1.4	-0.5
Std Dv	1.0	1.1	1.4	0.2	1.2	1.1	4.4	2.6	0.2	0.2

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107 X

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

APPROACH

40	96.3	93.2	83.7	92.3	96.2	97.1	14.0	15.5	0.9	-0.4
42	100.1	97.4	89.9	96.6	101.7	102.4	12.5	13.0	0.8	-0.5
44	99.4	96.6	88.1	95.9	100.5	101.0	14.5	14.0	0.5	-0.5
46	99.4	96.6	87.5	96.2	99.9	100.2	19.5	19.5	0.3	-0.6
48	99.0	96.0	87.7	95.6	100.6	101.3	18.5	16.0	0.7	-0.5
50	99.7	97.0	89.7	96.3	101.3	101.8	12.5	13.5	0.7	-0.4
Avg.	99.0	96.1	87.8	95.5	100.0	100.6	15.9	15.6	0.7	-0.5
Std Dv	1.4	1.5	2.2	1.6	2.0	1.9	2.9	2.3	0.2	0.0

TAKOFF

41	92.7	88.8	80.8	88.1	93.1	95.6	11.0	10.5	2.4	-1.7
43	91.4	87.7	80.0	85.7	91.3	93.5	12.0	12.0	2.4	-1.5
45	91.4	87.9	80.4	86.7	92.1	94.4	10.5	10.0	2.4	-1.6
47	91.4	87.9	80.0	86.7	91.9	94.1	12.5	10.0	2.4	-1.5
49	91.4	88.0	80.1	86.5	92.1	94.1	11.5	10.0	2.1	-1.5
51	91.7	88.3	80.7	86.6	92.2	94.5	11.0	10.0	2.4	-1.5
Avg.	91.7	88.1	80.3	86.7	92.1	94.4	11.4	10.4	2.3	-1.5
Std Dv	0.5	0.4	0.4	0.8	0.6	0.7	0.7	0.8	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

18	90.0	87.1	78.6	85.6	90.9	92.2	17.5	13.5	1.4	-0.9
19	88.5	85.6	79.5	85.8	91.8	92.9	10.0	9.0	1.1	-0.7
20	90.2	87.0	79.1	86.2	91.5	92.9	15.0	13.0	1.4	-0.9
21	89.2	86.4	80.1	86.0	92.5	93.3	9.5	8.5	0.8	-0.5
22	90.6	87.4	79.9	86.1	92.2	93.5	13.0	12.0	1.3	-0.8
23	88.4	85.4	78.6	85.5	90.6	91.7	10.5	10.0	0.9	-0.7
Avg.	89.5	86.5	79.3	85.9	91.6	92.7	12.6	11.0	1.2	-0.7
Std Dv	0.9	0.9	0.7	0.3	0.7	0.7	3.2	2.1	0.3	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

24	89.9	86.7	79.8	87.5	91.7	93.6	11.0	10.5	1.8	-1.0
25	89.1	86.1	81.1	89.5	92.7	94.2	7.5	7.5	1.5	-1.0
26	90.5	87.6	80.6	87.6	92.7	94.4	13.0	9.5	1.8	-0.8
27	89.4	86.6	81.5	88.8	93.0	94.3	8.0	7.5	1.3	-0.9
28	90.8	87.8	80.5	87.5	92.7	94.2	12.5	11.0	1.5	-1.0
29	89.0	85.9	79.7	87.7	91.7	93.1	9.5	9.0	1.3	-0.9
Avg.	89.8	86.8	80.5	88.1	92.4	94.0	10.2	9.2	1.5	-0.9
Std Dv	0.8	0.8	0.7	0.9	0.6	0.5	2.3	1.5	0.2	0.1

TABLE NO. A.4-2.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107 %

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

10	92.9	89.7	84.8	97.9	96.8	98.3	7.0	6.5	1.5	-0.8
11	92.4	89.4	85.5	96.9	97.3	98.3	5.5	5.5	1.0	-0.7
16	95.2	91.8	87.1	97.7	99.5	101.0	6.0	6.0	1.5	-1.0
17	92.3	89.2	85.2	96.6	97.0	98.3	6.0	6.0	1.3	-0.9
Avg.	93.2	90.0	85.6	97.3	97.7	99.0	6.1	6.0	1.3	-0.8
Std Dv	1.4	1.2	1.0	0.6	1.2	1.3	0.6	0.4	0.3	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

8	89.8	87.2	80.0	93.1	91.3	92.8	12.0	12.0	1.5	-0.8
9	87.2	85.0	78.2	93.3	89.6	90.9	10.5	10.5	1.2	-0.6
14	89.2	86.5	78.7	92.7	90.3	91.7	14.0	14.0	1.4	-0.8
15	87.2	84.8	78.2	92.1	89.5	90.7	10.0	10.5	1.1	-0.6
Avg.	88.4	85.9	78.8	92.8	90.2	91.5	11.6	11.7	1.3	-0.7
Std Dv	1.3	1.2	0.8	0.5	0.8	1.0	1.8	1.7	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

1	85.1	82.7	74.8	90.1	86.2	87.2	13.5	15.0	1.0	-0.6
2	86.1	84.1	74.7	90.0	85.5	87.0	22.0	21.5	1.5	-0.7
3	85.6	83.5	76.2	91.0	86.2	87.5	13.5	15.0	1.4	-0.6
4	86.8	84.5	75.5	90.2	86.6	88.1	18.0	18.5	1.6	-0.8
52	87.9	86.1	77.4	91.6	87.7	89.0	19.5	20.0	1.3	-0.8
53	85.7	84.1	76.9	91.8	87.3	88.0	15.5	16.0	0.7	-0.5
54	88.5	86.4	77.8	91.4	88.6	90.1	19.0	19.5	1.6	-0.7
55	86.8	85.2	78.1	91.6	88.7	89.7	11.0	11.5	0.9	-0.5
Avg.	86.6	84.6	76.4	91.0	87.1	88.3	16.5	17.1	1.2	-0.6
Std Dv	1.2	1.3	1.3	0.8	1.2	1.2	3.7	3.3	0.3	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107 %

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	81.4	79.5	70.0	87.4	81.2	82.5	20.5	21.0	1.3	-0.6
6	83.9	82.0	70.9	86.6	81.1	82.2	30.0	31.5	1.6	-0.7
7	81.6	80.1	71.6	87.2	81.3	82.6	19.5	19.5	1.3	-0.6
12	84.5	82.2	72.6	88.5	82.6	84.1	22.5	27.0	1.6	-0.9
13	81.4	79.5	71.2	88.3	80.9	82.4	16.0	18.5	1.5	-0.7
38	-	82.0	72.1	81.9	82.2	83.8	23.0	-	1.6	-
39	82.1	80.5	71.2	85.5	81.1	82.6	21.0	21.5	1.5	-0.7
Avg.	82.5	80.8	71.4	87.1	81.5	82.9	21.8	19.9	1.5	-0.7
Std Dev	1.4	1.2	0.8	1.1	0.6	0.7	4.3	9.9	0.1	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

34	81.8	79.9	69.5	85.0	79.6	81.0	26.0	32.5	1.4	-1.0
35	81.1	79.4	69.7	84.4	80.3	81.7	23.0	25.5	1.4	-0.7
36	-	79.4	67.9	84.2	79.3	80.6	36.0	-	1.4	-
37	80.4	78.4	68.5	84.2	79.2	80.8	24.5	23.5	1.6	-0.6
Avg.	81.1	79.3	68.9	84.5	79.6	81.1	27.4	20.4	1.5	-0.7
Std Dev	0.7	0.6	0.9	0.4	0.5	0.5	5.9	14.1	0.1	0.2

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

30	-	77.5	65.5	83.6	75.6	77.4	38.0	-	1.8	-
31	-	76.2	65.7	83.4	76.1	77.6	28.5	-	1.5	-
32	-	78.4	66.4	83.3	76.7	78.3	38.0	-	1.5	-
33	-	76.6	64.9	82.8	75.4	76.8	33.5	-	1.4	-
Avg.	-	77.2	65.6	83.3	76.0	77.5	34.5	0.0	1.6	-
Std Dev	0.0	1.0	0.6	0.3	0.6	0.6	4.5	0.0	0.2	0.0

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/13/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

40	96.7	93.4	85.3	93.8	98.1	98.9	14.0	13.0	0.8	-0.7
42	98.9	95.8	89.3	95.8	101.5	102.4	12.0	12.0	1.0	-0.6
44	98.5	95.0	88.5	95.4	100.7	101.7	12.5	13.0	0.9	-0.6
46	98.2	94.8	86.9	95.0	99.3	100.0	14.0	14.0	0.7	-0.6
48	98.0	94.6	87.9	94.5	100.4	101.4	12.0	11.5	1.0	-0.7
50	98.1	95.0	88.9	95.2	100.7	101.8	10.0	12.5	1.1	-0.7
Avg.	98.1	94.8	87.8	95.0	100.1	101.0	12.4	12.7	0.9	-0.7
Std Dv	0.7	0.8	1.5	0.7	1.2	1.3	1.5	0.9	0.2	0.0

TAKOFF

41	92.3	88.2	81.3	85.6	93.2	95.1	9.5	9.5	1.9	-1.6
43	91.9	87.6	80.8	84.2	92.8	95.0	10.5	10.0	2.2	-1.7
45	91.9	87.8	80.8	84.4	93.0	94.9	9.5	9.0	1.9	-1.6
47	92.2	88.1	82.1	86.5	93.8	95.4	8.5	8.5	1.4	-1.6
49	92.1	88.0	82.0	85.2	94.0	95.9	8.5	9.0	2.1	-1.6
51	92.1	88.0	82.0	85.6	93.8	95.9	8.0	8.0	2.1	-1.6
Avg.	92.1	88.0	81.5	85.6	93.4	95.4	9.1	9.0	1.9	-1.6
Std Dv	0.2	0.2	0.6	0.8	0.5	0.4	0.9	0.7	0.3	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

18	90.2	87.0	79.9	85.8	92.1	93.5	12.5	12.0	1.4	-1.1
19	88.7	85.4	78.8	84.2	91.2	92.4	11.5	10.5	1.2	-1.1
20	90.9	87.3	79.7	85.8	91.8	93.4	13.0	12.5	1.5	-1.1
21	89.0	86.0	78.7	84.4	91.2	92.3	11.5	11.0	0.9	-0.8
22	90.9	87.5	81.0	86.1	93.1	94.5	11.5	11.0	1.4	-1.1
23	88.3	85.2	78.3	84.2	91.0	92.1	10.5	9.5	1.1	-0.8
Avg.	89.7	86.4	79.4	85.1	91.7	93.0	11.7	11.1	1.2	-1.0
Std Dv	1.1	1.0	1.0	0.9	0.8	0.9	0.9	1.1	0.2	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

24	90.8	87.5	81.4	87.2	93.6	95.1	10.0	9.0	1.6	-1.1
25	89.3	86.1	80.3	88.6	92.3	93.8	8.0	7.5	1.4	-1.1
26	91.3	88.0	81.4	87.6	93.7	95.5	12.5	9.5	1.8	-1.2
27	90.6	87.4	81.7	88.4	93.6	94.8	8.5	8.5	1.4	-1.1
28	91.6	88.4	81.8	87.2	93.8	95.4	13.5	10.0	1.7	-1.0
29	89.4	86.2	79.4	87.5	92.0	93.1	10.0	9.5	1.1	-0.8
Avg.	90.5	87.3	81.0	87.7	93.2	94.6	10.4	9.0	1.5	-1.0
Std Dv	1.0	0.9	1.0	0.6	0.8	1.0	2.2	0.9	0.2	0.1

TABLE NO. A.4-2.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/31/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107X

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
10	93.4	89.9	85.1	97.6	97.5	98.8	7.0	7.0	1.3	-0.9
11	92.3	89.2	84.9	96.8	96.9	98.2	6.0	6.0	1.2	-0.8
16	95.1	91.7	86.7	97.0	99.1	100.7	7.0	6.0	1.6	-1.1
17	92.5	88.8	84.5	97.5	96.3	97.7	6.0	10.5	1.4	-1.1
Avg.	93.3	89.9	85.3	97.2	97.5	98.8	6.5	7.4	1.4	-1.0
Std Dev	1.3	1.3	1.0	0.4	1.2	1.3	0.6	2.1	0.2	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

8	89.9	87.3	79.6	91.7	91.2	92.1	13.0	13.0	0.9	-0.9
9	88.3	85.5	78.9	92.9	90.1	91.3	14.0	15.0	1.1	-0.7
14	88.9	86.2	78.6	91.6	89.8	91.0	13.5	14.0	1.3	-0.9
15	87.9	85.3	78.5	92.5	89.6	90.8	10.5	10.5	1.2	-0.9
Avg.	88.8	86.1	78.9	92.2	90.2	91.3	12.7	13.1	1.1	-0.8
Std Dev	0.9	0.9	0.5	0.6	0.7	0.6	1.6	1.9	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

1	85.0	82.7	74.3	89.4	84.8	86.1	14.5	15.0	1.3	-0.8
2	86.8	84.5	75.4	89.6	86.7	88.0	21.0	20.0	1.2	-0.8
3	85.4	83.1	74.6	89.7	85.8	86.8	15.0	15.0	0.9	-0.9
4	86.9	84.6	76.2	89.9	87.0	88.1	16.5	18.0	1.2	-0.9
52	86.8	84.3	76.0	89.9	86.4	87.7	17.5	20.0	1.3	-0.7
53	85.4	83.0	76.0	89.8	86.9	88.5	15.5	16.0	1.6	-0.7
54	86.9	84.8	76.1	89.4	86.4	87.6	20.0	22.0	1.2	-0.7
55	85.5	83.2	75.2	89.2	86.1	87.4	14.0	13.5	1.2	-0.7
Avg.	86.1	83.8	75.5	89.6	86.3	87.5	16.7	17.4	1.2	-0.8
Std Dev	0.8	0.9	0.7	0.3	0.7	0.8	2.6	3.0	0.2	0.1

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/26/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	81.7	79.6	70.8	86.9	80.4	81.8	20.5	22.0	1.6	-0.6
6	83.9	81.6	70.4	85.4	80.8	82.0	31.0	34.0	1.2	-0.6
7	81.3	79.3	70.8	85.7	80.5	81.4	19.5	24.0	1.1	-0.6
12	83.6	81.7	72.0	86.9	82.9	83.9	22.5	25.0	1.0	-0.8
13	81.4	79.5	71.2	87.7	81.2	82.5	17.5	19.5	1.4	-0.9
38	84.6	82.6	73.1	86.2	82.7	84.0	22.5	24.0	1.4	-0.7
39	82.8	80.7	72.4	84.6	82.6	83.9	20.0	20.5	1.3	-0.6
Avg.	82.7	80.7	71.5	86.2	81.6	82.8	21.9	24.1	1.3	-0.7
Std Dv	1.3	1.3	1.0	1.1	1.1	1.1	4.4	4.8	0.2	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

34	82.3	80.5	70.3	85.7	80.0	81.2	25.0	26.0	1.2	-0.7
35	81.3	79.1	69.9	83.9	79.3	80.4	25.0	34.5	1.2	-0.6
36	81.8	79.3	68.4	84.6	78.4	79.8	27.5	50.0	1.4	-0.6
37	80.8	78.6	68.0	83.9	78.1	79.7	27.5	30.0	1.6	-0.6
Avg.	81.5	79.4	69.1	84.5	79.0	80.3	26.2	35.1	1.3	-0.6
Std Dv	0.7	0.8	1.1	0.9	0.9	0.7	1.4	10.5	0.2	0.1

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

30	-	77.6	66.1	83.3	75.8	77.2	36.0	-	1.4	-
31	78.9	77.0	65.8	83.7	76.0	77.4	29.5	34.5	1.4	-0.7
32	-	78.9	67.7	83.8	77.4	78.7	32.5	-	1.4	-
33	79.5	77.2	66.6	83.2	76.8	78.4	30.0	32.0	1.7	-0.6
Avg.	79.2	77.7	66.6	83.5	76.5	77.9	32.0	16.6	1.5	-0.6
Std Dv	0.4	0.9	0.9	0.3	0.7	0.8	3.0	19.2	0.1	0.1

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.3
SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA

DOT/TSC
1/ 5/81

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH										
40	95.2	91.9	82.3	90.6	94.4	95.3	25.5	22.0	0.9	-0.7
42	96.3	93.4	85.6	91.6	96.6	97.9	16.5	17.5	1.2	-0.7
44	97.4	94.3	85.4	93.7	97.0	98.1	23.0	22.5	1.1	-0.6
46	97.2	94.2	84.7	92.4	96.5	97.3	22.0	22.0	0.9	-0.6
48	97.0	94.1	86.2	92.6	97.9	98.9	16.0	16.5	1.0	-0.8
50	96.2	93.4	85.3	92.2	97.4	98.2	17.0	15.5	0.8	-0.7
Avg.	96.5	93.6	84.9	92.2	96.7	97.6	20.0	19.3	1.0	-0.7
Std Dv	0.8	0.9	1.4	1.1	1.2	1.2	4.0	3.2	0.2	0.1

TAKOFF

41	89.0	85.4	77.8	82.9	89.0	90.6	12.0	11.5	2.4	-1.6
43	88.5	84.6	76.6	81.6	88.0	90.1	14.0	14.0	2.0	-1.6
45	89.1	85.9	77.2	83.2	88.7	90.9	13.0	12.5	2.2	-1.6
47	87.6	84.5	74.8	81.0	86.9	89.0	16.0	14.5	2.1	-1.4
49	88.1	84.8	75.7	81.2	87.2	89.1	15.5	15.0	2.2	-1.5
51	88.6	85.5	76.5	81.9	88.2	90.0	15.0	14.5	2.1	-1.5
Avg.	88.5	85.1	76.4	82.0	88.0	89.9	14.2	13.7	2.2	-1.5
Std Dv	0.6	0.6	1.1	0.9	0.8	0.8	1.5	1.4	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

18	90.6	87.5	80.8	86.4	92.2	93.7	14.0	14.0	1.5	-1.1
19	88.2	85.0	77.6	84.1	90.4	91.9	11.0	9.5	1.4	-1.0
20	90.3	87.1	80.1	85.8	91.7	93.3	13.0	12.5	1.5	-1.0
21	88.9	85.9	78.8	85.1	90.8	92.0	11.0	10.5	1.5	-1.0
22	90.6	87.3	81.0	86.2	92.8	94.2	11.0	10.5	1.4	-0.9
23	88.3	85.2	77.4	84.7	89.7	90.9	13.5	12.5	1.3	-1.0
Avg.	89.5	86.3	79.3	85.4	91.3	92.7	12.2	11.6	1.4	-1.0
Std Dv	1.1	1.1	1.6	0.9	1.2	1.3	1.4	1.7	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

24	90.2	86.7	80.4	87.0	92.4	94.5	11.0	10.0	2.1	-1.4
25	88.3	85.5	79.2	88.2	91.2	92.8	8.5	8.0	1.7	-1.1
26	89.9	87.0	80.4	86.2	91.4	93.0	12.0	11.5	1.6	-1.1
27	87.8	85.0	77.9	87.1	89.9	91.4	10.5	9.5	1.5	-1.0
28	90.1	87.2	81.0	86.7	92.3	93.8	11.0	11.0	1.5	-1.1
29	87.8	84.9	78.0	86.8	89.6	90.7	11.5	11.5	1.0	-0.9
Avg.	89.0	86.0	79.5	87.0	91.2	92.7	10.7	10.2	1.6	-1.1
Std Dv	1.2	1.0	1.3	0.7	1.2	1.4	1.2	1.4	0.3	0.2

TABLE NO. A.4-2.3
SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 5/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(F) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

10	92.6	89.4	84.6	97.7	96.2	97.4	7.5	8.0	1.2	-0.9
11	92.2	89.1	84.1	96.9	96.2	97.4	6.5	6.0	1.2	-1.0
16	94.5	91.0	85.4	97.1	97.7	99.1	8.5	8.5	1.5	-0.9
17	92.4	89.1	84.5	97.1	96.6	98.4	6.0	5.5	1.9	-1.3
Avg.	92.9	89.7	84.7	97.2	96.7	98.1	7.1	7.0	1.4	-1.0
Std Dev	1.1	0.9	0.5	0.3	0.7	0.9	1.1	1.5	0.3	0.2

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

8	89.1	86.6	79.9	90.6	90.4	91.8	12.0	14.0	1.4	-0.8
9	86.5	84.1	76.7	92.6	88.2	89.3	11.5	11.5	1.1	-0.9
14	88.6	85.9	79.0	92.0	89.9	91.2	13.0	14.0	1.2	-0.9
15	87.1	84.6	77.1	92.4	88.3	89.6	12.5	11.5	1.4	-1.0
Avg.	87.8	85.3	78.2	91.9	89.2	90.5	12.2	12.7	1.3	-0.9
Std Dev	1.2	1.2	1.6	0.9	1.1	1.2	0.6	1.4	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

1	85.0	82.6	74.6	90.6	85.3	86.8	15.0	15.5	1.5	-1.1
2	86.3	84.1	75.1	90.6	84.7	85.9	20.0	23.0	1.2	-0.9
3	85.2	83.1	74.4	91.1	84.9	86.4	16.0	15.5	1.5	-1.0
4	87.1	84.6	76.5	90.3	86.7	88.0	16.5	18.0	1.3	-0.9
52	86.6	84.4	75.9	90.5	86.3	87.5	17.5	18.0	1.2	-0.9
53	84.0	81.6	73.1	90.2	84.3	85.6	15.0	15.5	1.3	-0.9
54	87.4	85.0	77.9	90.1	88.2	89.4	16.5	18.0	1.1	-0.9
55	85.9	83.6	75.0	90.5	86.0	87.1	13.5	16.0	1.1	-1.0
Avg.	85.9	83.6	75.3	90.5	85.8	87.1	16.2	17.4	1.3	-0.9
Std Dev	1.1	1.1	1.5	0.3	1.2	1.2	1.9	2.5	0.2	0.1

* - INDEXES (A, J, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 5/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

5	81.2	79.1	68.5	87.7	79.1	80.5	22.5	23.0	1.5	-1.1
6	84.4	82.2	72.5	87.7	82.1	83.3	23.5	27.5	1.2	-0.9
7	82.1	80.2	70.8	88.4	81.1	82.5	20.5	20.5	1.4	-1.1
12	83.9	82.1	73.8	88.1	82.8	83.8	19.5	25.5	1.0	-0.8
13	80.6	78.8	69.7	88.0	80.2	81.4	20.0	21.0	1.1	-0.9
38	84.1	81.9	73.1	86.3	82.7	83.9	20.5	30.5	1.3	-0.9
39	81.3	79.4	69.1	86.2	79.5	80.8	22.5	22.5	1.2	-1.0
Avg.	82.5	80.5	71.1	87.5	81.1	82.3	21.3	24.4	1.2	-1.0
Std Dv	1.6	1.5	2.1	0.9	1.5	1.4	1.5	3.7	0.2	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

34	81.8	80.0	69.8	86.7	79.4	80.8	23.0	27.0	1.4	-0.9
35	80.2	78.5	66.9	85.1	76.8	78.7	27.5	27.5	2.2	-1.1
36	81.1	79.0	69.2	85.0	78.6	80.0	27.5	33.5	1.3	-1.0
37	79.7	77.8	66.7	84.9	76.9	78.3	28.0	29.5	1.6	-1.1
Avg.	80.7	78.8	68.2	85.4	77.9	79.5	26.5	29.4	1.6	-1.0
Std Dv	0.9	0.9	1.6	0.8	1.3	1.1	2.3	3.0	0.4	0.1

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

30	-	76.9	65.8	83.1	74.9	76.1	34.5	-	1.2	-
31	-	74.9	64.4	83.3	74.4	75.6	32.0	-	1.2	-
32	-	78.1	66.9	83.8	76.2	77.3	33.0	-	1.1	-
33	-	75.6	64.3	82.9	74.7	75.9	32.5	-	1.1	-
Avg.	-	76.4	65.4	83.3	75.0	76.2	33.0	0.0	1.2	-
Std Dv	0.0	1.4	1.2	0.4	0.8	0.8	1.1	0.0	0.0	0.0

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNL.T CALCULATIONS

TABLE NO. A.4-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

40	94.9	92.2	83.0	88.9	93.7	95.5	21.5	18.5	1.8	-0.7
42	95.0	92.3	81.5	86.1	92.0	94.0	25.5	25.0	2.1	-1.1
44	95.7	92.7	84.0	89.6	94.6	96.7	21.5	22.0	2.0	-1.2
46	96.1	93.4	84.5	89.6	95.6	97.8	24.0	21.5	2.2	-0.9
48	94.4	91.6	82.4	88.3	93.6	95.4	21.5	21.0	1.8	-1.0
50	93.2	90.3	78.9	86.7	91.2	92.4	26.5	26.5	1.4	-0.9

Avg.	94.9	92.1	82.4	88.2	93.5	95.3	23.4	22.4	1.9	-1.0
Std Dv	1.0	1.1	2.0	1.5	1.6	1.9	2.2	2.9	0.3	0.2

TAKEOFF

41	92.7	89.3	80.2	86.3	92.1	94.2	14.5	14.0	2.2	-1.5
43	92.5	89.1	80.0	85.3	92.3	94.2	24.5	19.5	2.0	-1.5
45	92.3	89.0	81.2	86.9	92.6	94.8	13.0	13.0	2.3	-1.6
47	92.2	89.0	80.4	86.1	91.5	93.7	13.5	14.5	2.2	-1.5
49	92.1	88.5	80.7	85.4	91.9	93.8	13.0	13.5	1.8	-1.6
51	92.4	89.2	80.9	85.8	92.1	94.0	14.5	15.0	2.2	-1.4

Avg.	92.4	89.0	80.6	86.0	92.1	94.1	15.5	14.9	2.1	-1.5
Std Dv	0.2	0.3	0.5	0.6	0.4	0.4	4.5	2.4	0.2	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS

18	90.3	87.5	78.2	87.9	89.4	91.1	18.0	17.0	1.7	-1.1
19	89.6	87.2	79.5	86.6	90.9	92.3	13.0	13.0	1.5	-0.9
20	90.0	87.0	78.1	88.1	90.4	92.3	16.0	14.0	1.9	-1.1
21	89.6	87.1	79.5	86.5	90.6	92.0	12.5	12.5	1.4	-0.9
22	89.9	87.1	78.6	88.4	89.9	91.5	14.5	14.0	1.8	-1.2
23	89.3	86.9	79.1	85.6	90.2	91.5	12.5	12.0	1.3	-0.9

Avg.	89.8	87.1	78.8	87.2	90.3	91.8	14.4	13.7	1.6	-1.0
Std Dv	0.4	0.2	0.6	1.1	0.6	0.5	2.2	1.8	0.3	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS

25	90.1	87.9	80.7	89.2	92.1	93.3	11.5	11.5	1.1	-0.7
26	90.1	87.6	78.9	91.3	90.3	91.9	14.5	14.0	1.6	-0.9
27	90.1	88.0	80.9	89.4	92.2	93.2	10.0	10.0	1.0	-0.7
28	90.2	87.7	79.3	91.4	90.8	92.2	13.5	13.5	1.4	-0.8
29	90.3	87.8	80.9	89.2	92.6	94.3	11.0	10.5	1.7	-0.8

Avg.	90.2	87.8	80.2	90.1	91.6	93.0	12.1	11.9	1.4	-0.8
Std Dv	0.1	0.2	1.0	1.1	1.0	1.0	1.9	1.8	0.3	0.1

TABLE NO. A.4-2.4

BIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
9/23/80

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /A**

300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

10	93.4	89.6	82.9	100.6	95.0	96.3	9.5	10.0	1.6	-1.0
11	93.4	91.1	84.4	96.7	95.6	96.9	9.5	9.5	1.2	-0.8
16	93.5	89.9	83.7	99.4	96.1	97.3	8.5	8.5	1.2	-1.0
17	93.0	90.6	83.6	94.4	94.6	95.8	9.5	10.0	1.1	-1.0
Avm.	93.3	90.3	83.6	97.8	95.3	96.6	9.2	9.5	1.3	-0.9
Std Dv	0.2	0.7	0.6	2.8	0.6	0.7	0.5	0.7	0.2	0.1

700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

8	91.1	88.5	80.0	97.2	92.1	92.3	13.5	15.0	0.2	-0.5
9	90.8	88.0	80.5	95.1	92.2	93.9	11.5	11.0	2.0	-1.1
14	89.8	87.2	79.2	95.8	90.4	91.6	13.5	14.5	1.3	-0.7
15	89.9	87.2	80.0	93.2	91.6	93.4	11.5	11.0	1.8	-1.1
Avm.	90.4	87.7	79.9	95.3	91.6	92.8	12.5	12.9	1.3	-0.9
Std Dv	0.7	0.6	0.5	1.7	0.8	1.0	1.2	2.2	0.8	0.3

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

1	88.6	85.7	77.7	91.7	87.9	90.1	14.5	14.5	2.1	-1.2
2	88.7	86.0	76.0	94.6	87.3	88.3	20.5	25.0	1.1	-0.6
3	89.1	86.6	77.4	92.3	88.7	90.3	15.5	15.0	1.9	-1.0
4	88.6	86.1	76.1	94.5	87.6	88.3	19.5	20.0	1.3	-0.7
52	87.1	84.7	75.2	93.6	86.7	87.4	21.5	21.5	0.6	-0.7
53	87.6	85.1	76.6	91.1	87.3	88.9	16.0	16.0	1.5	-1.0
54	87.5	84.9	76.2	93.3	87.5	88.4	20.0	20.0	0.9	-0.6
55	88.2	85.4	79.1	91.7	90.6	92.5	11.0	10.0	2.0	-1.2
Avm.	88.2	85.6	76.8	92.8	87.9	89.3	17.3	17.8	1.4	-0.9
Std Dv	0.7	0.7	1.2	1.4	1.2	1.6	3.6	4.8	0.5	0.3

* - INDEXES (A,Dv, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /A , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 25, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

5	84.5	82.1	72.4	89.2	83.2	85.1	21.0	20.5	1.9	-1.2
6	86.4	84.0	72.9	91.2	84.6	85.9	30.0	31.5	1.3	-0.6
7	85.4	82.6	72.1	89.8	84.1	85.9	22.0	20.5	1.8	-1.2
12	88.0	85.5	74.8	93.9	86.0	86.9	24.5	30.5	0.9	-0.4
38	84.8	82.7	71.7	89.8	82.2	83.1	26.5	31.5	0.9	-0.7
39	84.9	82.4	73.3	86.3	83.7	85.8	22.0	21.5	2.0	-1.3
Avg.	85.7	83.2	72.9	90.0	84.0	85.4	24.3	26.0	1.5	-0.9
Std Dv	1.3	1.3	1.1	2.5	1.3	1.3	3.4	5.7	0.5	0.4

2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

34	83.7	81.6	69.8	89.4	80.3	81.6	35.0	36.5	1.3	-0.7
35	83.4	81.0	70.2	85.9	80.5	82.2	26.0	27.0	1.7	-1.1
36	-	80.9	69.1	87.6	79.8	80.9	34.0	-	1.2	-
37	83.2	81.0	69.7	85.8	80.4	82.1	28.0	27.5	1.7	-1.1
Avg.	83.5	81.1	69.7	87.2	80.2	81.7	30.7	22.7	1.5	-1.0
Std Dv	0.2	0.3	0.4	1.7	0.3	0.6	4.4	15.8	0.3	0.3

2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

30	-	79.2	66.7	86.2	76.8	78.1	37.0	-	1.3	-
31	79.7	77.4	68.2	84.9	78.8	80.5	25.5	25.5	1.9	-1.1
32	82.2	80.1	68.1	87.0	78.2	79.6	37.0	41.5	1.4	-0.8
33	81.3	78.9	69.0	84.1	78.6	79.9	24.5	31.0	1.3	-1.1
Avg.	81.1	78.9	68.0	85.5	78.1	79.5	31.0	24.5	1.5	-1.0
Std Dv	1.2	1.1	1.0	1.3	0.9	1.0	6.9	17.6	0.3	0.1

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH

42	92.1	88.8	76.6	84.6	89.9	90.9	36.5	29.5	2.1	-0.8
42	92.6	89.8	79.5	85.1	90.5	92.1	33.0	32.5	2.2	-0.8
44	93.6	90.2	78.1	86.0	91.4	92.3	33.0	29.0	0.9	-0.8
46	93.5	90.2	77.4	85.1	90.0	91.2	33.5	32.5	1.2	-0.8
48	93.2	90.1	79.8	84.9	90.5	91.6	29.5	30.0	1.2	-0.8
50	92.8	90.1	78.2	85.2	90.1	91.3	35.5	25.0	1.6	-0.8
Avg.	93.0	89.9	78.3	85.2	90.4	91.6	33.5	29.7	1.5	-0.8
Std Dev	0.6	0.5	1.2	0.5	0.5	0.5	2.4	2.8	0.5	0.0

TAKEOFF

41	88.7	86.4	78.0	83.7	89.1	90.5	13.5	13.5	1.4	-1.1
43	88.5	86.3	77.8	82.3	88.8	90.2	16.5	16.5	1.4	-1.1
45	90.1	87.9	80.7	85.0	91.2	92.4	11.5	13.0	1.5	-1.1
47	89.3	87.2	79.7	85.0	89.9	91.4	12.5	14.0	1.5	-1.0
49	89.3	87.2	79.6	84.8	90.4	91.5	11.5	12.5	1.2	-1.0
51	89.0	87.0	78.7	85.0	89.2	90.3	14.0	14.5	1.2	-1.0
Avg.	89.1	87.0	79.1	84.3	89.8	91.1	13.2	14.0	1.4	-1.1
Std Dev	0.5	0.6	1.1	1.1	0.9	0.9	1.9	1.4	0.1	0.0

500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS

18	89.8	87.6	78.0	84.5	89.2	90.5	21.5	18.0	1.4	-0.7
19	86.8	84.3	76.4	86.1	88.3	89.8	13.0	10.5	1.5	-1.0
20	90.3	88.2	77.9	84.6	89.2	90.6	21.5	20.0	1.4	-0.7
21	89.5	86.5	78.5	90.4	90.4	91.9	12.5	12.0	1.4	-1.0
22	89.6	87.5	79.1	84.8	90.2	91.4	16.5	14.0	1.2	-0.7
23	86.1	83.9	75.3	84.5	86.5	88.1	14.0	13.5	1.5	-0.8
Avg.	88.7	86.3	77.5	85.8	89.0	90.4	16.5	14.7	1.4	-0.8
Std Dev	1.8	1.8	1.4	2.3	1.4	1.3	4.1	3.6	0.1	0.1

500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS

24	90.1	87.7	79.0	86.0	90.2	91.6	17.5	17.0	1.5	-0.9
25	87.0	84.7	77.7	90.4	88.9	89.7	11.0	11.0	1.1	-0.8
26	91.0	88.8	79.8	86.3	90.6	92.0	16.5	16.5	1.4	-0.9
27	86.9	84.7	77.5	90.0	88.9	90.0	11.5	11.0	1.2	-0.8
28	90.6	88.6	79.4	86.1	90.6	91.9	17.0	17.0	1.4	-0.8
29	86.5	84.2	76.6	89.0	88.3	89.6	11.5	11.0	1.3	-0.7
Avg.	88.7	86.5	78.4	88.0	89.6	90.8	14.2	13.9	1.3	-0.8
Std Dev	2.1	2.1	1.3	2.1	1.0	1.1	3.1	3.2	0.1	0.0

TABLE NO. A.4-2.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOI/15C
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS										
10	92.6	90.8	83.0	94.1	94.2	95.3	13.0	11.0	1.1	-0.5
11	89.7	86.7	80.7	96.3	93.1	94.1	8.0	8.0	1.0	-0.8
16	93.4	91.7	83.4	92.2	94.5	95.5	13.5	13.0	1.0	-0.7
17	90.5	87.6	81.4	96.0	93.5	94.7	9.0	8.0	1.2	-0.8
AVG.	91.6	89.2	82.1	94.7	93.8	94.9	10.9	10.0	1.1	-0.7
Std Dv	1.7	2.4	1.3	1.9	0.6	0.6	2.8	2.4	0.1	0.1

700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

8	90.7	88.5	78.4	92.0	90.0	91.4	20.0	18.0	1.6	-0.9
9	86.4	84.2	76.1	93.2	87.3	87.8	12.5	13.0	0.7	-0.6
14	90.5	87.9	78.2	91.4	89.6	90.9	18.0	18.0	1.4	-0.9
15	86.6	84.1	76.7	93.3	88.6	89.0	11.5	12.5	0.6	-0.6
AVG.	88.6	86.2	77.4	92.5	88.8	89.8	15.5	15.4	1.1	-0.7
Std Dv	2.4	2.3	1.1	0.9	1.2	1.6	4.1	3.0	0.5	0.1

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

1	85.1	82.6	74.2	91.5	86.2	86.8	15.0	16.5	0.7	-0.5
2	88.4	86.0	75.1	90.0	86.2	87.8	23.5	22.5	1.6	-0.9
3	84.7	82.5	73.1	92.0	84.4	85.7	18.0	18.5	1.4	-0.6
4	88.5	85.9	75.4	90.3	86.7	88.3	21.0	20.5	1.6	-1.0
52	88.0	85.7	76.0	89.8	86.1	87.9	19.0	20.0	1.8	-1.1
53	85.3	83.1	74.9	90.8	86.2	86.9	16.0	18.5	0.9	-0.7
54	88.5	86.0	76.4	89.4	87.1	88.8	21.0	20.5	1.7	-1.1
55	85.0	82.6	74.1	91.0	85.8	86.3	23.0	22.5	0.6	-0.7
AVG.	86.7	84.3	74.9	90.6	86.1	87.3	19.6	19.9	1.3	-0.8
Std Dv	1.8	1.7	1.1	0.9	0.8	1.1	3.1	2.1	0.5	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/ISC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

5	81.8	80.1	70.0	88.1	80.5	81.4	22.0	23.0	1.0	-0.6
6	85.0	83.0	71.9	86.7	82.8	84.2	26.5	26.5	1.4	-0.8
7	81.8	80.0	70.1	87.8	81.4	82.4	22.5	21.5	1.0	-0.5
12	85.3	82.9	72.1	88.0	82.2	84.0	25.0	30.5	1.8	-0.8
13	81.6	79.8	69.6	88.4	81.4	82.2	20.5	21.5	0.8	-0.5
38	84.6	82.5	72.0	85.7	82.2	83.6	22.5	27.0	2.0	-1.0
39	82.2	80.3	71.4	86.0	81.5	82.4	22.0	23.0	0.9	-0.7
AVG.	83.2	81.2	71.0	87.3	81.7	82.9	23.0	24.7	1.3	-0.7
Std Dev	1.7	1.5	1.1	1.1	0.7	1.1	2.0	3.4	0.5	0.2

2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

34	83.2	80.8	69.7	86.1	79.5	81.4	27.5	42.0	1.9	-0.9
35	81.1	79.4	69.3	85.2	79.4	80.2	24.0	27.0	1.1	-0.6
36	82.4	80.3	68.9	84.4	79.1	80.5	29.0	31.5	2.1	-1.1
37	-	78.9	68.7	85.0	79.4	80.2	22.5	-	0.8	-
AVG.	82.2	79.9	69.2	85.2	79.4	80.6	25.7	25.1	1.5	-0.8
Std Dev	1.1	0.9	0.4	0.7	0.2	0.6	3.0	17.9	0.6	0.3

2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

30	-	78.0	65.1	83.4	75.5	77.3	40.5	-	1.8	-
31	-	76.2	64.5	84.0	75.2	75.9	31.5	-	0.7	-
32	-	79.1	66.1	83.3	76.1	78.0	43.0	-	1.8	-
33	78.2	76.7	64.6	83.6	75.4	76.3	34.0	35.0	0.9	-0.5
AVG.	78.2	77.5	65.1	83.6	75.5	76.9	37.2	8.7	1.3	-0.5
Std Dev	-	1.3	0.7	0.3	0.4	1.0	5.4	17.5	0.6	-

* - INDEXES (A, D, V, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.5G
SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA

DOT/TSC
1/ 2/81

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

EV	EFNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
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APPROACH

40	95.3	92.2	80.9	88.0	93.0	93.8	29.5	29.0	0.9	-0.4
42	96.3	93.7	83.6	89.3	95.8	96.8	27.0	21.5	1.0	-0.5
44	97.0	93.8	83.0	89.7	95.3	96.4	28.5	28.0	1.1	-0.4
46	100.0	96.7	84.9	93.5	97.3	98.2	31.0	30.5	1.1	-0.5
48	96.7	93.9	83.0	88.8	94.4	95.1	24.5	25.0	0.7	-0.4
50	96.6	93.9	82.6	89.7	94.8	96.0	25.0	23.5	1.5	-0.5
Avg.	97.0	94.0	83.0	89.8	95.1	96.0	27.6	26.2	1.0	-0.5
Std Dev	1.6	1.4	1.3	1.9	1.4	1.5	2.6	3.5	0.3	0.0

TAKEOFF

41	94.5	91.3	83.2	87.8	95.0	96.9	12.0	12.0	1.8	-1.5
43	94.6	91.5	83.4	87.0	94.1	96.1	14.0	14.5	2.1	-1.5
45	95.9	93.1	86.1	89.1	96.3	98.4	11.0	11.5	2.1	-1.6
47	95.4	92.5	85.5	88.9	95.7	97.8	11.0	13.5	2.1	-1.5
49	95.4	92.8	85.7	88.5	96.2	97.5	11.5	12.0	0.8	-1.5
51				NO DATA						
Avg.	95.1	92.3	84.8	88.3	95.5	97.3	11.9	12.7	1.8	-1.5
Std Dev	0.6	0.8	1.4	0.8	0.9	0.9	1.2	1.3	0.5	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

18	94.3	91.2	82.3	87.8	93.8	95.7	16.5	14.5	1.9	-1.0
19	91.6	88.9	81.4	87.6	93.2	94.6	11.5	10.5	1.4	-0.7
20	94.8	91.8	82.4	88.1	94.6	96.0	18.0	17.0	2.0	-0.9
21	91.8	89.3	82.0	87.7	93.6	94.7	10.5	10.5	1.0	-0.6
22	94.6	91.5	83.6	88.4	95.1	96.9	14.0	13.0	1.8	-1.0
23	91.0	88.6	80.7	86.3	92.2	93.6	11.5	11.5	1.4	-0.6
Avg.	93.0	90.2	82.1	87.6	93.7	95.2	13.7	12.8	1.6	-0.8
Std Dev	1.7	1.4	1.0	0.7	1.0	1.2	3.0	2.6	0.4	0.2

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

24	95.1	92.0	83.9	89.4	95.2	97.0	13.5	13.0	1.8	-1.0
25	92.3	89.9	83.5	91.9	94.9	95.9	9.5	10.0	1.0	-0.6
26	95.8	92.9	84.6	89.8	95.9	97.4	14.5	13.5	1.8	-0.9
27	92.2	89.7	83.0	91.1	94.7	95.7	10.0	10.0	1.0	-0.5
28	95.2	92.4	84.4	89.6	95.7	97.5	15.5	14.0	1.9	-0.8
29	92.0	89.6	82.4	90.4	94.1	95.1	11.0	11.0	1.0	-0.4
Avg.	93.8	91.1	83.6	90.3	95.1	96.4	12.3	11.9	1.4	-0.7
Std Dev	1.8	1.5	0.8	1.0	0.7	1.0	2.5	1.8	0.4	0.2

TABLE NO. 6.4-2.56

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(F) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

10	97.8	94.8	87.8	95.5	99.8	101.0	9.5	9.0	1.4	-0.9
11	94.8	91.6	86.4	97.2	98.7	99.5	7.0	7.0	0.9	-0.5
16	97.4	94.1	87.1	93.6	99.6	100.7	9.5	9.5	1.0	-1.0
17	95.6	92.6	87.2	96.9	99.1	100.1	7.5	8.0	0.9	-0.5
Avg.	96.4	93.3	87.1	95.8	99.3	100.3	8.4	8.4	1.1	-0.7
Std Dev	1.4	1.4	0.6	1.7	0.5	0.7	1.3	1.1	0.2	0.2

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

8	95.4	92.5	83.9	93.9	95.6	97.2	14.5	13.5	1.9	-0.7
9	91.7	89.2	81.4	94.6	93.0	93.9	11.5	12.0	0.9	-0.7
14	94.5	91.7	82.6	93.1	94.4	95.8	15.0	13.5	1.5	-0.7
15	91.5	88.9	82.1	94.5	94.0	95.1	10.0	9.5	1.1	-0.5
Avg.	93.3	90.6	82.5	94.0	94.2	95.5	12.7	12.1	1.4	-0.7
Std Dev	2.0	1.8	1.0	0.7	1.1	1.4	2.4	1.9	0.4	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

1	89.9	87.5	78.8	92.6	91.2	91.9	14.5	14.0	0.9	-0.4
2	92.6	90.0	79.6	92.1	91.5	93.1	21.0	18.5	1.6	-0.7
3	89.7	87.5	78.5	93.4	90.1	90.9	14.0	16.5	0.8	-0.5
4	92.7	90.1	80.4	92.4	92.1	93.8	20.0	17.0	1.8	-0.7
52	92.4	89.9	80.6	92.2	92.2	93.6	17.0	16.0	1.3	-0.8
53	90.2	88.0	79.7	92.8	91.7	92.9	13.5	14.0	1.1	-0.4
54	92.8	90.1	81.7	91.7	93.3	94.6	19.5	19.0	1.3	-0.8
55	89.9	87.4	79.3	92.9	91.2	91.9	13.0	20.5	0.5	-0.6
Avg.	91.3	88.8	79.8	92.5	91.6	92.8	16.8	16.9	1.2	-0.6
Std Dev	1.4	1.3	1.1	0.5	0.9	1.2	3.1	2.3	0.4	0.2

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE
PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/13/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
5	84.6	84.9	74.9	89.4	86.3	87.2	20.0	19.5	1.1	-0.4
6	88.9	84.7	76.0	88.9	86.7	88.1	25.5	25.5	1.5	-0.7
7	84.5	84.6	75.2	89.2	86.7	87.5	18.0	18.0	0.7	-0.3
12	89.5	87.2	76.4	89.9	87.4	89.0	23.0	23.5	1.7	-0.7
13	86.1	84.3	75.7	89.6	87.1	87.9	16.5	15.5	0.7	-0.4
38	88.6	86.5	75.8	87.7	86.8	88.2	22.5	21.0	1.5	-0.7
39	86.6	84.8	76.1	87.0	87.2	88.3	20.0	20.0	1.1	-0.5
Avg.	87.5	85.6	75.7	88.8	86.9	88.0	20.8	20.4	1.2	-0.5
Std Dev	1.4	1.2	0.5	1.1	0.4	0.6	3.1	3.3	0.4	0.1
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
34	86.7	84.8	73.9	87.8	84.7	86.2	26.5	26.5	1.5	-0.5
35	84.9	83.4	72.9	86.0	83.6	84.7	23.0	23.0	1.1	-0.5
36	86.1	84.1	72.9	85.9	83.6	85.2	28.5	26.5	1.6	-0.7
37	84.6	83.1	72.3	85.9	82.8	83.9	23.5	24.5	1.1	-0.4
Avg.	85.6	83.8	73.0	86.4	83.7	85.0	25.4	25.1	1.3	-0.5
Std Dev	1.0	0.8	0.6	0.9	0.8	1.0	2.6	1.7	0.3	0.2
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
30	84.2	82.2	69.9	85.1	80.2	81.9	36.5	37.0	1.7	-0.8
31	82.2	80.7	69.5	85.2	80.1	80.8	25.5	29.0	0.7	-0.4
32	-	83.0	70.7	85.1	80.9	82.4	34.5	-	1.5	-
33	82.2	80.9	70.1	84.8	80.5	81.5	30.5	31.0	1.0	-0.4
Avg.	82.9	81.7	70.1	85.1	80.4	81.6	31.7	24.2	1.3	-0.5
Std Dev	1.2	1.1	0.5	0.2	0.4	0.7	4.9	16.5	0.5	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
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APPROACH

40	89.8	87.2	77.0	82.8	88.3	88.9	33.5	37.0	0.8	-0.4
42	90.1	87.8	78.5	83.1	89.5	90.7	32.5	33.0	1.2	-0.4
44	90.5	88.3	76.6	82.3	87.8	88.6	35.0	35.0	0.8	-0.4
46	90.9	88.7	79.0	83.7	89.9	91.1	33.0	33.5	1.2	-0.4
48	88.7	86.1	74.8	81.9	86.9	87.5	34.5	34.5	0.6	-0.5
50	88.4	85.9	74.4	81.3	85.2	86.3	42.5	42.5	1.1	-0.5
Avg.	89.7	87.3	76.7	82.5	87.9	88.8	35.2	35.9	1.0	-0.5
Std Dv	1.0	1.1	1.9	0.9	1.7	1.9	3.7	3.5	0.3	0.1

TAKEOFF

41	89.4	85.6	74.8	82.0	88.0	89.8	27.5	21.0	2.0	-1.5
43	88.7	85.0	74.1	80.7	87.4	89.3	30.5	19.5	1.9	-1.3
45	88.9	85.7	74.8	82.4	86.6	88.8	27.5	23.0	2.1	-1.3
47	89.6	86.1	76.7	82.3	87.4	89.6	22.5	19.5	2.2	-1.5
49	88.1	84.3	75.3	81.5	86.0	88.1	18.0	20.0	2.3	-1.6
51	88.7	85.2	75.6	81.9	87.3	89.2	26.0	17.5	2.1	-1.6
Avg.	88.9	85.3	75.2	81.8	87.1	89.1	25.3	20.1	2.1	-1.5
Std Dv	0.6	0.6	0.9	0.6	0.7	0.6	4.4	1.8	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

18	86.1	83.3	73.2	82.9	85.1	87.1	25.0	23.0	2.2	-0.9
19	86.6	84.4	75.3	81.9	86.0	87.0	18.0	18.0	1.5	-0.7
20	85.6	82.7	72.1	82.8	83.7	85.6	25.5	22.5	2.2	-0.8
21	86.7	84.4	75.4	82.0	86.4	87.9	17.5	17.0	1.4	-0.8
22	85.6	82.7	73.0	83.1	84.4	86.1	21.0	21.0	1.7	-0.9
23	86.0	83.8	74.2	81.2	85.1	86.3	19.5	19.5	1.2	-0.6
Avg.	86.1	83.6	73.9	82.3	85.1	86.7	21.1	20.2	1.7	-0.8
Std Dv	0.5	0.8	1.3	0.7	1.0	0.8	3.5	2.4	0.4	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

24	86.6	84.3	75.1	86.0	86.6	87.6	19.5	19.0	1.1	-0.6
25	87.6	85.8	77.7	85.4	88.5	89.4	16.5	16.5	0.9	-0.6
26	86.9	84.2	75.6	85.6	87.2	88.7	19.0	18.0	1.6	-0.9
27	87.8	85.7	77.1	84.9	88.2	89.3	14.5	14.5	1.1	-0.6
28	87.1	84.2	74.6	85.8	86.4	87.6	20.0	20.0	1.6	-0.9
29	88.0	85.9	78.1	85.7	89.0	89.8	14.0	14.0	0.8	-0.7
Avg.	87.3	85.0	76.3	85.5	87.6	88.7	17.2	17.0	1.2	-0.7
Std Dv	0.5	0.9	1.5	0.4	1.1	0.9	2.6	2.4	0.3	0.1

TABLE NO. A.4-2.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107X

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / \ **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

10										
				NO DATA						
11	89.5	84.9	79.1	89.2	90.3	92.5	12.5	11.5	2.2	-1.0
14	88.4	85.1	77.1	92.3	89.0	90.0	13.0	13.5	1.0	-0.5
17	89.3	86.7	78.5	87.9	89.6	91.5	13.5	13.0	1.9	-1.0
Avg.	89.1	86.2	78.2	89.8	89.6	91.3	13.0	12.7	1.7	-0.9
Std Dev	0.6	1.0	1.0	2.3	0.6	1.2	0.5	1.0	0.6	0.3

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

8	87.7	84.7	76.1	93.1	88.1	89.6	16.0	16.0	1.6	-0.9
9	88.3	86.1	76.8	91.4	88.0	90.1	14.0	13.0	2.1	-1.0
14	86.8	83.4	73.9	91.7	86.8	88.5	18.5	17.5	1.7	-0.7
15	87.9	85.0	77.0	90.6	88.9	91.1	14.0	13.0	2.2	-1.2
Avg.	87.7	84.8	76.0	91.7	87.9	89.8	15.6	14.9	1.9	-1.0
Std Dev	0.6	1.1	1.4	1.0	0.9	1.1	2.1	2.2	0.3	0.2

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

1	86.6	84.0	74.5	88.9	85.4	86.9	19.0	19.0	1.6	-0.9
2	86.1	83.3	72.8	91.3	85.2	86.7	22.0	22.0	1.6	-0.7
3	87.1	84.8	74.9	89.7	85.8	87.4	19.0	18.0	1.7	-1.0
4	86.1	83.3	73.0	91.6	85.1	86.8	21.5	22.5	1.6	-0.9
52	86.2	83.3	73.6	90.9	85.4	86.6	21.0	20.5	1.2	-0.9
53	86.6	84.0	74.9	89.3	86.7	87.9	20.0	19.5	1.2	-0.9
54	86.2	83.1	73.0	91.1	84.7	85.9	23.5	27.5	1.5	-0.8
55	87.9	85.3	77.9	89.7	87.5	90.2	13.5	13.5	2.7	-0.9
Avg.	86.6	83.9	74.3	90.3	85.7	87.3	19.9	20.3	1.6	-0.9
Std Dev	0.6	0.8	1.7	1.0	0.9	1.3	3.0	4.0	0.5	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107X

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
5	83.3	81.0	70.3	87.5	80.7	82.8	23.5	23.0	2.0	-1.2
6	-	81.4	69.2	88.6	80.8	82.2	34.0	-	1.4	-
7	-	80.9	71.7	88.0	81.9	83.9	18.0	-	2.0	-
12	83.7	81.1	70.0	89.8	81.7	83.3	27.5	26.5	1.6	-0.5
13	83.2	80.3	70.1	88.2	82.0	83.6	24.0	19.5	1.9	-1.4
38	84.3	81.4	69.7	88.3	81.4	82.8	28.0	32.0	1.4	-0.5
39	84.4	81.9	71.1	85.6	82.3	83.7	24.0	24.0	1.5	-1.1
Avg.	83.8	81.1	70.3	88.0	81.5	83.2	25.9	17.9	1.7	-1.0
Std Dev	0.6	0.5	0.8	1.3	0.6	0.6	5.5	12.8	0.3	0.4
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
34	82.8	80.3	69.9	88.7	81.0	82.3	25.5	30.0	1.3	-0.6
35	83.1	80.7	69.4	85.5	80.1	81.5	28.0	28.0	1.4	-1.1
36	82.6	79.7	68.6	86.9	79.1	80.3	30.5	49.5	1.2	-0.4
37	82.6	79.9	69.1	86.1	80.0	81.3	29.0	31.5	1.3	-1.2
Avg.	82.8	80.2	69.3	86.8	80.0	81.4	28.2	34.7	1.3	-0.8
Std Dev	0.2	0.5	0.6	1.4	0.8	0.8	2.1	9.9	0.1	0.4
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS										
30	80.5	78.2	66.9	85.1	77.2	78.2	35.5	45.0	1.0	-0.5
31	80.5	77.8	67.1	85.1	78.3	79.7	32.5	32.5	1.4	-1.1
32	81.3	79.0	68.1	85.7	77.9	78.9	33.5	42.0	1.0	-0.5
33	81.6	79.2	68.8	83.9	78.9	80.5	27.5	30.0	1.5	-1.2
Avg.	81.0	78.6	67.7	85.0	78.1	79.3	32.2	37.4	1.2	-0.8
Std Dev	0.6	0.7	0.9	0.8	0.7	1.0	3.4	7.2	0.3	0.4

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

56	99.7	96.0	90.6	101.7	102.9	103.9	6.5	7.5	1.0	-0.6
57	99.1	95.2	90.1	100.4	102.8	103.4	7.0	10.0	0.9	-0.5
58	100.1	96.7	91.2	101.5	104.0	104.8	6.0	6.5	0.7	-0.6
59	98.7	95.2	89.0	100.2	101.4	102.3	7.5	9.0	1.2	-0.6
Avg.	99.4	95.8	90.2	101.0	102.8	103.6	6.7	8.2	1.0	-0.6
Std Dev	0.6	0.7	0.9	0.8	1.1	1.0	0.6	1.6	0.2	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

60	95.2	92.2	84.7	94.7	95.9	96.9	11.5	12.0	1.2	-0.7
61	94.7	91.5	83.1	93.1	94.8	95.9	13.5	22.5	1.1	-0.7
62	93.8	90.5	83.3	92.5	94.4	95.4	16.5	17.0	1.1	-0.7
63	94.8	91.8	82.7	93.8	94.4	95.7	14.5	15.0	1.3	-0.7
Avg.	94.6	91.5	83.4	93.5	94.9	96.0	14.0	16.6	1.2	-0.7
Std Dev	0.6	0.7	0.9	0.9	0.7	0.6	2.1	4.4	0.1	0.0

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

64	92.6	89.6	81.2	92.2	92.8	94.2	17.0	16.5	1.4	-0.7
65	-	89.1	79.8	90.6	90.9	92.0	19.5	-	1.6	-
66	91.2	88.3	78.6	90.1	90.4	91.0	21.0	21.5	0.7	-0.6
67	91.3	88.5	77.8	90.8	90.4	91.7	21.0	19.5	1.7	-0.7
Avg.	91.7	88.9	79.4	90.9	91.1	92.2	19.6	14.4	1.3	-0.7
Std Dev	0.8	0.6	1.5	0.9	1.1	1.4	1.9	9.8	0.5	0.0

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A-5-3.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE -- CENTER

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(F) TC / **

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

68	87.8	84.9	74.4	88.4	86.1	87.4	22.0	21.5	1.3	-0.7
69	89.6	86.7	78.6	90.4	90.1	91.1	20.0	23.5	1.0	-0.4
70	89.7	86.5	75.8	88.2	86.9	88.7	27.0	28.0	1.8	-0.8
71	90.3	86.9	77.8	89.2	89.2	90.0	20.5	35.5	1.6	-0.7
Avg.	89.3	86.2	76.6	89.1	88.1	89.3	22.4	27.1	1.4	-0.6
Std Dev	1.1	0.9	1.9	1.0	1.9	1.6	3.2	6.2	0.3	0.2

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

72	88.3	85.6	76.1	87.4	87.1	89.0	22.5	22.5	2.3	-0.9
73	86.3	83.9	71.5	86.3	83.0	84.5	36.5	33.5	1.5	-0.8
74	-	83.8	73.7	85.9	84.5	85.5	33.5	-	1.2	-
75	88.7	86.4	75.7	86.1	85.4	86.5	30.0	37.5	1.1	-0.9
Avg.	87.8	84.9	74.3	86.4	85.0	86.4	30.6	23.4	1.5	-0.9
Std Dev	1.3	1.3	2.1	0.7	1.7	1.9	6.0	16.8	0.5	0.1

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

76	86.7	84.5	73.0	83.4	83.8	84.6	40.5	37.5	0.9	-1.0
77	87.2	84.7	73.5	85.1	83.1	84.5	39.5	49.0	2.2	-0.9
Avg.	86.9	84.6	73.2	84.2	83.4	84.6	40.0	43.2	1.5	-0.9
Std Dev	0.4	0.1	0.3	1.2	0.4	0.1	0.7	8.1	0.9	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.10

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE-CENTER (FLUSH)

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS										
56	103.5	99.9	95.2	104.8	107.3	108.0	6.0	7.0	0.8	-0.5
57	102.9	99.2	94.5	103.3	107.1	107.9	6.5	7.5	0.8	-0.5
58	104.1	100.6	95.0	105.0	108.0	109.2	6.5	6.0	1.2	-0.5
59	102.7	98.8	93.3	103.5	105.9	106.8	7.0	8.0	1.2	-0.5
Avm.	103.3	99.6	94.5	104.2	107.1	108.0	6.5	7.1	1.0	-0.5
Std Dv	0.6	0.8	0.8	0.9	0.9	1.0	0.4	0.9	0.3	0.0

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

60	99.5	96.2	89.9	98.6	100.7	102.1	9.5	10.5	1.5	-0.6
61	99.3	95.8	87.3	97.5	99.8	100.9	13.5	13.5	1.1	-0.6
62	98.4	94.4	88.0	97.7	99.2	100.7	10.5	16.0	1.4	-0.5
63	99.1	95.5	86.6	97.7	99.5	100.6	14.5	14.5	1.2	-0.6
Avm.	99.1	95.5	87.9	97.9	99.8	101.1	12.0	13.6	1.3	-0.6
Std Dv	0.5	0.8	1.4	0.5	0.7	0.7	2.4	2.3	0.2	0.0

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

64	96.5	93.1	84.9	95.3	96.9	98.1	16.5	15.5	1.2	-0.3
65	96.5	93.0	83.8	94.9	95.3	96.7	19.5	21.5	1.4	-0.6
66	95.8	92.4	83.5	93.9	95.4	96.6	20.5	20.5	1.1	-0.4
67	95.4	92.3	81.7	93.5	94.5	95.8	23.0	19.0	1.6	-0.7
Avm.	96.0	92.7	83.5	94.4	95.5	96.8	19.9	19.1	1.3	-0.5
Std Dv	0.5	0.4	1.3	0.9	1.0	0.9	2.7	2.6	0.2	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.10

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE-CENTER (FLUSH)

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(F) TC /**

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

68	92.5	89.1	78.7	91.2	90.4	91.7	21.0	20.5	1.5	-0.5
69	93.4	90.2	80.3	92.7	92.5	93.2	24.0	25.0	0.7	-0.6
70	93.9	90.5	79.7	90.7	91.5	92.8	26.5	27.0	1.5	-0.5
71	94.3	90.7	81.2	91.8	93.2	94.2	21.0	34.5	1.0	-0.6
Avg.	93.5	90.1	80.0	91.6	91.9	93.0	23.1	26.7	1.2	-0.5
Std Dev	0.8	0.7	1.0	0.9	1.2	1.0	2.7	5.8	0.4	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

72	92.2	89.4	78.9	90.4	90.6	91.4	23.0	23.0	0.9	-0.5
73	90.4	87.7	75.9	88.9	87.2	88.5	36.0	33.5	1.3	-0.5
74	-	87.6	77.1	88.5	88.6	89.6	33.0	-	1.0	-
75	91.2	88.0	76.6	88.6	87.8	89.5	37.0	36.5	1.7	-0.6
Avg.	91.3	88.2	77.1	89.1	88.6	89.8	32.2	23.3	1.2	-0.5
Std Dev	0.9	0.8	1.3	0.9	1.4	1.2	6.4	16.5	0.3	0.1

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

76	89.2	86.2	74.4	86.0	85.6	86.8	40.5	37.0	1.4	-0.5
77	89.5	86.3	74.0	87.5	85.9	86.8	41.5	41.5	0.9	-0.7
Avg.	89.3	86.3	74.2	86.8	85.7	86.8	41.0	39.2	1.2	-0.6
Std Dev	0.2	0.1	0.3	1.0	0.2	0.0	0.7	3.2	0.4	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TBC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

56	101.7	97.8	92.2	103.1	105.1	106.0	7.5	8.0	0.9	-0.6
57	101.0	97.1	91.9	102.1	104.5	105.4	7.0	8.0	0.9	-0.7
58	102.0	98.5	93.2	103.3	105.9	106.9	6.0	6.5	1.0	-0.6
59	101.0	96.9	90.7	101.8	103.8	105.2	8.0	8.5	1.3	-0.7
Avg.	101.4	97.5	92.0	102.6	104.8	105.9	7.1	7.7	1.0	-0.7
Std Dv	0.5	0.7	1.0	0.7	0.9	0.8	0.9	0.9	0.2	0.0

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

60	97.2	93.9	86.2	96.4	98.3	99.9	11.5	11.0	1.7	-0.8
61	97.1	93.6	85.2	96.0	97.7	99.4	13.5	13.5	1.7	-0.7
62	96.4	92.5	84.9	95.8	97.0	97.7	16.5	17.0	0.8	-0.7
63	97.5	93.8	85.2	96.4	97.7	99.4	15.0	14.0	1.7	-0.9
Avg.	97.1	93.5	85.4	96.1	97.7	99.1	14.1	13.9	1.4	-0.8
Std Dv	0.5	0.6	0.6	0.3	0.5	1.0	2.1	2.5	0.5	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

64	94.5	91.2	82.1	94.1	94.6	96.2	17.5	16.0	1.6	-0.7
65	94.3	90.7	81.2	92.3	92.8	94.3	20.0	21.5	1.5	-0.9
66	93.1	89.7	80.6	91.4	92.7	93.5	21.0	21.0	0.9	-0.7
67	93.6	90.2	80.1	92.0	92.6	94.1	20.5	20.0	1.6	-0.9
Avg.	93.9	90.5	81.0	92.5	93.2	94.5	19.7	19.6	1.4	-0.8
Std Dv	0.6	0.6	0.9	1.1	1.0	1.1	1.6	2.5	0.4	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TBC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS										
68	90.5	87.0	76.6	90.8	88.2	90.0	21.0	20.5	2.0	-0.8
69	-	88.2	78.2	90.8	90.3	90.7	25.5	-	0.3	-
70	91.9	88.5	78.6	89.6	90.6	92.1	27.0	26.0	1.5	-0.8
71	92.0	88.5	77.3	90.6	89.8	91.7	31.5	30.5	1.9	-0.7
Avm.	91.5	88.1	77.7	90.4	89.7	91.1	26.2	19.2	1.4	-0.8
Std Dv	0.8	0.7	0.9	0.6	1.1	1.0	4.3	13.5	0.8	0.0

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

72	90.1	87.3	76.8	89.1	88.5	90.2	24.5	23.0	1.6	-0.7
73	88.6	85.5	73.5	87.8	85.3	87.2	35.5	34.0	1.9	-0.9
74	-	85.8	75.0	86.6	86.7	88.4	34.0	-	1.7	-
75	89.2	86.0	73.4	86.9	86.0	87.9	39.5	37.0	1.9	-0.9
Avm.	89.3	86.1	74.7	87.6	86.6	88.4	33.4	23.5	1.8	-0.8
Std Dv	0.8	0.8	1.6	1.1	1.4	1.3	6.4	16.8	0.1	0.1

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

76	87.3	83.9	73.0	85.4	84.3	85.6	36.5	43.0	1.3	-0.9
77	-	84.4	71.5	86.8	83.5	85.3	41.0	-	1.8	-
Avm.	87.3	84.2	72.2	86.1	83.9	85.4	38.7	21.5	1.5	-0.9
Std Dv	-	0.3	1.0	1.0	0.6	0.2	3.2	30.4	0.4	-

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

56	99.4	95.9	90.9	101.4	102.7	103.4	6.5	7.0	1.0	-0.7
57	98.7	94.6	90.2	100.5	102.9	103.5	6.0	8.0	0.6	-0.6
58	98.6	95.0	90.2	100.5	102.5	103.3	6.0	7.0	0.8	-0.6
59	98.4	94.4	88.6	101.1	101.6	102.6	7.0	7.5	1.1	-0.6
Avg.	98.8	95.0	90.0	100.8	102.4	103.2	6.4	7.4	0.9	-0.6
Std Dev	0.4	0.7	0.9	0.4	0.6	0.4	0.5	0.5	0.3	0.0

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

60	-	93.2	84.5	95.3	96.9	98.2	14.0	-	2.0	-
61	94.7	91.3	82.5	94.1	95.0	96.2	14.0	14.0	1.3	-0.6
62	95.0	91.8	83.5	93.7	95.1	96.3	14.0	15.0	1.1	-0.6
63	94.5	91.0	81.7	93.6	93.9	95.4	17.5	17.5	1.5	-0.7
Avg.	94.7	91.8	83.1	94.2	95.2	96.5	15.4	12.1	1.5	-0.7
Std Dev	0.3	1.0	1.2	0.8	1.2	1.2	1.7	8.1	0.4	0.0

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

64	91.8	88.9	81.1	91.5	92.9	93.8	15.0	14.5	0.9	-0.7
65	92.3	89.0	79.8	91.2	92.0	93.0	21.0	21.0	1.0	-0.7
66	90.7	87.4	77.8	90.1	89.5	90.9	17.0	17.5	1.4	-0.8
67	91.4	88.2	78.6	90.9	90.3	91.2	20.0	21.5	1.2	-0.8
Avg.	91.6	88.4	79.3	90.9	91.2	92.3	18.2	18.6	1.1	-0.8
Std Dev	0.7	0.8	1.4	0.6	1.5	1.4	2.8	3.3	0.2	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS										
68	87.5	84.8	74.7	87.1	85.8	87.3	20.0	19.5	1.5	-0.8
69	88.8	85.8	74.3	88.1	85.9	87.1	30.5	31.5	1.2	-0.6
70	88.9	85.6	75.1	87.6	87.1	88.3	25.0	26.0	1.2	-0.7
71	89.4	86.0	74.9	88.6	86.7	88.1	26.0	33.5	1.7	-0.7
Avg.	88.7	85.6	74.7	87.8	86.4	87.7	25.4	27.6	1.4	-0.7
Std Dv	0.8	0.5	0.4	0.6	0.7	0.6	4.3	6.3	0.3	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

72	87.8	85.2	75.4	87.4	86.8	87.8	27.0	26.5	1.0	-0.8
73	-	83.6	72.0	85.3	83.6	84.8	36.0	-	1.2	-
74	86.3	83.6	72.0	85.7	82.9	84.1	30.5	29.0	1.2	-0.7
75	86.6	83.7	71.4	86.2	83.1	84.7	33.5	34.0	1.7	-0.7
Avg.	86.9	84.0	72.7	86.2	84.1	85.3	31.7	22.4	1.3	-0.7
Std Dv	0.8	0.8	1.8	0.9	1.8	1.7	3.9	15.2	0.3	0.1

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

76	85.1	82.2	71.5	83.9	82.6	84.6	38.5	39.5	2.0	-0.8
77	-	81.9	69.6	84.6	80.7	81.8	37.5	-	1.5	-
Avg.	85.1	82.0	70.5	84.2	81.7	83.2	38.0	19.7	1.7	-0.8
Std Dv	-	0.2	1.4	0.5	1.3	2.0	0.7	27.9	0.3	-

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

SUMMARY NOISE LEVEL DATA

1/ 5/81

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

56	100.1	96.4	90.5	101.6	103.0	104.0	7.0	7.0	1.1	-0.8
57	99.6	95.3	89.5	101.3	102.8	103.9	8.5	8.0	1.3	-0.7
58	99.9	96.5	89.7	101.5	102.3	103.3	8.5	8.5	1.0	-0.7
59	99.6	95.5	89.4	101.7	101.9	103.2	7.5	9.0	1.3	-0.7
Avg.	99.8	95.9	89.8	101.6	102.5	103.6	7.9	8.1	1.2	-0.7
Std Dv	0.2	0.6	0.5	0.2	0.5	0.4	0.7	0.9	0.2	0.0

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

60	94.8	91.3	83.5	95.5	95.6	96.6	13.0	13.5	0.9	-0.7
61	95.2	91.6	83.1	95.2	95.1	96.4	15.0	20.5	1.4	-0.7
62	94.3	90.8	83.5	95.4	95.4	96.8	12.5	12.5	1.4	-0.9
63	95.4	91.9	82.8	96.8	95.5	96.6	13.5	13.5	1.0	-0.7
Avg.	94.9	91.4	83.2	95.7	95.4	96.6	13.5	15.0	1.2	-0.7
Std Dv	0.5	0.5	0.3	0.7	0.2	0.1	1.1	3.7	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

64	92.6	89.4	81.6	92.9	93.1	94.5	18.5	18.0	1.7	-0.9
65	92.8	89.3	79.2	92.7	91.6	92.9	25.5	25.0	1.2	-0.7
66	91.7	88.5	79.5	92.0	91.2	92.5	23.0	23.0	1.2	-0.7
67	91.3	88.1	78.7	92.1	90.6	92.2	18.0	18.0	1.6	-0.8
Avg.	92.1	88.8	79.8	92.4	91.6	93.0	21.2	21.0	1.4	-0.8
Std Dv	0.7	0.6	1.3	0.5	1.0	1.0	3.6	3.6	0.2	0.1

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

1/ 5/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

68	88.5	85.6	75.4	88.1	86.6	87.9	23.0	23.5	1.4	-0.6
69	89.8	86.5	76.3	90.0	87.9	88.9	36.0	37.0	1.1	-0.8
70	88.8	85.6	75.1	88.8	86.9	87.9	31.5	31.0	1.0	-0.7
71	90.2	86.6	78.3	90.2	89.9	90.8	27.0	32.5	0.9	-0.7
Avg.	89.3	86.1	76.3	89.3	87.8	88.9	29.4	31.0	1.1	-0.7
Std Dev	0.8	0.6	1.4	1.0	1.5	1.4	5.6	5.6	0.2	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

72	88.2	85.3	73.6	87.9	85.2	86.5	30.5	30.5	1.3	-0.9
73	87.3	84.4	72.3	86.5	83.6	84.3	49.5	50.0	0.7	-0.7
74	87.7	84.8	74.4	87.1	86.0	87.5	38.0	37.0	1.5	-0.9
75	87.1	84.2	75.1	87.6	86.5	88.0	26.0	24.5	1.5	-0.9
Avg.	87.6	84.7	73.9	87.3	85.3	86.6	36.0	35.5	1.3	-0.8
Std Dev	0.5	0.5	1.2	0.6	1.3	1.6	10.3	10.9	0.4	0.1

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

76	85.9	82.8	70.5	85.9	82.3	83.8	42.0	42.0	1.5	-0.9
77	-	83.0	69.8	86.4	81.3	83.1	48.5	-	1.8	-
Avg.	85.9	82.9	70.2	86.1	81.8	83.4	45.2	21.0	1.7	-0.9
Std Dev	-	0.1	0.5	0.4	0.7	0.5	4.6	29.7	0.2	-

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

56	97.6	93.6	87.9	95.2	99.3	101.1	8.5	9.5	1.8	-1.0
57	98.9	95.6	89.5	96.9	100.7	103.1	9.0	10.0	2.3	-0.9
58	97.3	93.4	87.3	95.4	98.6	100.3	8.5	11.0	1.9	-1.1
59	99.5	96.1	89.3	98.7	100.4	101.5	11.0	12.0	1.2	-0.7

Avg.	98.3	94.7	88.8	96.5	99.8	101.5	9.2	10.6	1.8	-0.9
Std Dv	1.1	1.4	1.1	1.6	1.0	1.2	1.2	1.1	0.5	0.2

700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

60	96.0	93.1	84.0	95.6	96.0	97.1	15.5	15.0	1.1	-0.9
61	96.2	93.3	84.6	94.9	95.6	96.4	16.0	20.5	1.1	-0.7
62	95.4	92.1	84.3	94.5	95.6	96.7	17.0	18.0	1.1	-0.7
63	95.3	92.6	83.6	94.6	94.8	95.5	14.5	17.0	0.6	-0.4

Avg.	95.7	92.8	84.1	94.9	95.5	96.4	15.7	17.6	1.0	-0.7
Std Dv	0.4	0.5	0.4	0.5	0.5	0.7	1.0	2.3	0.2	0.2

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

64	96.1	93.5	84.9	94.2	96.2	97.8	15.0	15.0	1.6	-0.9
65	94.4	91.0	81.1	94.3	92.6	94.0	19.0	27.0	1.4	-0.5
66	95.6	92.7	84.2	93.4	94.6	95.7	17.0	22.5	1.1	-0.9
67	-	90.4	80.3	93.2	91.6	92.9	21.5	-	1.4	-

Avg.	95.4	91.9	82.6	93.8	93.8	95.1	18.1	16.1	1.4	-0.8
Std Dv	0.9	1.4	2.3	0.6	2.0	2.1	2.8	11.8	0.2	0.2

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

68	92.4	90.0	82.1	90.9	91.9	93.1	17.0	19.5	1.2	-0.9
69	91.6	88.4	77.2	92.5	89.5	90.8	33.0	32.0	1.3	-0.6
70	92.6	90.1	81.4	90.6	91.0	92.2	19.5	20.5	1.2	-0.9
71	91.8	88.7	77.4	92.3	88.6	89.7	38.0	39.0	1.1	-0.6
Avg.	92.1	89.3	79.5	91.5	90.3	91.4	26.9	27.7	1.2	-0.8
Std Dv	0.5	0.9	2.6	1.0	1.5	1.5	10.2	9.4	0.1	0.1

2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

72	91.5	89.0	77.9	89.2	89.4	90.5	33.5	35.5	1.1	-0.7
73	88.6	85.8	74.3	88.0	85.5	86.7	39.5	44.0	1.2	-0.6
74	90.4	88.3	78.0	89.1	88.9	90.1	25.5	26.0	1.2	-0.7
75	88.4	85.6	75.0	88.1	85.4	86.3	35.5	39.0	0.9	-0.5
Avg.	89.7	87.2	76.3	88.6	87.3	88.4	33.5	36.1	1.1	-0.6
Std Dv	1.5	1.7	1.9	0.6	2.1	2.2	5.9	7.6	0.2	0.1

2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

76	88.1	85.8	75.8	86.7	85.2	86.3	34.5	39.5	1.0	-0.7
77	-	84.0	71.8	87.0	83.2	84.4	40.5	-	1.2	-
Avg.	88.1	84.9	73.8	86.9	84.2	85.3	37.5	19.7	1.1	-0.7
Std Dv	-	1.3	2.8	0.2	1.5	1.3	4.2	27.9	0.2	-

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO.A.5-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TBC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS										
56	98.1	94.7	89.3	97.8	100.7	101.9	8.0	9.5	1.2	-0.8
57	98.0	94.5	88.1	96.6	99.4	100.8	11.0	11.0	1.6	-1.1
58	97.9	94.8	89.2	96.2	100.7	101.8	7.5	8.5	1.0	-0.9
59	98.1	94.4	87.1	96.2	98.7	100.6	11.5	12.0	1.9	-1.1
Avg.	98.0	94.6	88.4	96.7	99.9	101.3	9.5	10.2	1.4	-0.9
Std Dv	0.1	0.2	1.1	0.8	1.0	0.7	2.0	1.6	0.4	0.2

700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

60	94.9	91.6	84.0	94.1	96.0	96.9	15.5	15.5	0.9	-0.5
61	-	94.4	85.2	95.0	96.8	97.9	16.0	-	1.1	-
62	93.6	90.3	82.9	93.2	94.7	95.4	13.0	13.5	0.8	-0.6
63	96.8	94.1	86.3	94.8	96.9	98.1	16.0	16.5	1.3	-0.8
Avg.	95.1	92.6	84.6	94.3	96.1	97.1	15.1	11.4	1.0	-0.6
Std Dv	1.6	2.0	1.5	0.8	1.0	1.2	1.4	7.7	0.2	0.2

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

	-----			NO DATA		-----				
64										
65	95.7	93.1	84.9	92.9	95.2	96.2	16.5	23.0	1.0	-0.8
66	92.1	89.5	80.4	90.6	92.0	92.7	16.0	16.5	0.9	-0.7
67	94.9	92.4	83.6	92.9	93.5	94.7	18.5	19.5	1.3	-0.8
Avg.	94.2	91.6	83.0	92.1	93.5	94.5	17.0	19.7	1.1	-0.8
Std Dv	1.9	1.9	2.3	1.3	1.6	1.7	1.3	3.3	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

68	89.2	86.6	78.2	88.8	89.5	90.2	20.5	21.5	0.3	-0.6
69	91.9	89.6	80.3	90.1	89.8	91.1	25.0	25.0	1.3	-0.8
70	88.9	86.2	76.9	87.9	88.1	88.9	21.0	29.0	0.5	-0.7
71	92.6	90.0	82.1	90.7	91.9	93.0	21.5	24.5	1.1	-0.8
Avg.	90.6	88.1	79.3	89.4	89.8	90.8	22.0	25.0	0.8	-0.7
Std Dv	1.9	2.0	2.3	1.3	1.6	1.7	2.0	3.1	0.5	0.1

2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

72	87.3	84.6	73.5	87.0	85.8	86.9	31.0	31.0	1.1	-0.6
73	88.3	85.7	74.8	88.0	86.4	87.6	29.0	27.5	1.5	-0.6
74	87.5	85.3	77.5	86.3	88.1	89.8	22.0	21.0	1.7	-0.6
75	89.6	86.9	75.6	87.2	85.9	87.1	35.0	39.0	1.2	-0.7
Avg.	88.2	85.6	75.4	87.1	86.6	87.9	29.2	29.6	1.4	-0.6
Std Dv	1.0	1.0	1.7	0.7	1.1	1.3	5.4	7.5	0.3	0.0

2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

76	84.6	81.8	69.9	84.3	81.0	82.1	36.0	38.0	1.1	-0.6
77	87.8	85.0	73.7	86.1	84.3	85.9	37.0	45.0	1.6	-0.8
Avg.	86.2	83.4	71.8	85.2	82.7	84.0	36.5	41.5	1.3	-0.7
Std Dv	2.3	2.2	2.7	1.3	2.4	2.7	0.7	4.9	0.3	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.50

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

56	101.9	98.8	94.1	99.0	105.3	106.2	6.5	8.5	1.2	-0.7
57	101.8	98.3	92.6	100.0	103.9	105.5	8.0	8.0	1.7	-0.8
58	102.1	99.4	94.1	98.4	105.3	106.0	6.5	8.0	0.8	-0.5
59	101.3	97.7	91.4	99.5	103.2	104.7	9.5	9.0	1.5	-0.8
Ave.	101.8	98.6	93.0	99.2	104.4	105.6	7.6	8.4	1.3	-0.7
Std Dev	0.4	0.7	1.3	0.7	1.0	0.6	1.4	0.5	0.4	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

60	99.0	95.9	89.6	96.6	101.9	102.8	10.0	12.0	0.9	-0.1
61	100.9	98.3	90.2	97.6	100.6	101.7	14.5	17.5	1.2	-0.6
62	-	95.1	88.0	95.1	99.7	100.0	12.0	-	0.3	-
63	100.8	98.4	91.1	97.5	101.3	102.6	13.5	14.5	1.4	-0.6
Ave.	100.2	96.9	89.7	96.7	100.9	101.8	12.5	11.0	0.9	-0.4
Std Dev	1.1	1.7	1.3	1.1	0.9	1.3	2.0	7.7	0.5	0.3

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

64	96.7	94.5	86.6	94.1	97.6	98.1	14.0	16.5	0.5	-0.2
65	99.5	97.1	89.9	96.1	99.8	101.3	15.0	16.5	1.6	-0.7
66	96.4	93.8	85.3	92.6	97.0	97.3	14.5	16.5	0.3	-0.2
67	98.5	96.1	88.2	95.4	98.0	99.5	14.5	18.0	1.5	-0.7
Ave.	97.8	95.4	87.5	94.5	98.1	99.0	14.5	16.9	1.0	-0.4
Std Dev	1.5	1.5	2.0	1.5	1.2	1.8	0.4	0.7	0.6	0.3

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.50
SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(F)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS										
68	93.3	90.9	83.0	90.7	94.1	94.9	19.0	20.0	0.7	-0.3
69	96.0	93.4	85.1	92.6	94.5	96.1	21.5	24.0	1.6	-0.6
70	92.9	90.3	81.2	89.9	92.6	93.3	18.0	27.0	0.7	-0.2
71	96.3	93.8	86.6	92.8	96.3	97.8	18.0	22.0	1.5	-0.6
Avg.	94.6	92.1	84.0	91.5	94.4	95.5	19.1	23.2	1.1	-0.4
Std Dev	1.8	1.7	2.3	1.4	1.5	1.9	1.7	3.0	0.5	0.2

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

72	91.1	88.5	78.0	89.6	89.2	90.2	30.5	31.0	1.0	-0.4
73	92.1	89.4	78.9	90.9	89.5	91.1	28.5	28.0	1.6	-0.6
74	91.4	89.3	81.6	89.0	92.3	92.9	19.5	22.0	0.5	-0.3
75	93.2	90.4	80.0	89.8	90.2	91.6	32.0	36.5	1.3	-0.6
Avg.	91.9	89.4	79.6	89.8	90.3	91.5	27.6	29.4	1.1	-0.5
Std Dev	0.9	0.8	1.5	0.8	1.4	1.1	5.6	6.0	0.5	0.2

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

76	88.6	85.8	74.1	86.6	84.8	86.1	33.5	37.0	1.4	-0.4
77	91.6	88.7	78.2	89.0	87.9	89.5	32.0	43.0	1.6	-0.6
Avg.	90.1	87.2	76.1	87.8	86.4	87.8	32.7	40.0	1.5	-0.5
Std Dev	2.1	2.0	2.9	1.7	2.2	2.4	1.1	4.2	0.1	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

56	92.1	87.7	80.7	91.0	92.4	94.4	13.5	14.5	1.9	-0.7
57	94.8	91.0	83.5	93.4	94.5	96.2	12.5	14.5	2.4	-1.3
58	93.3	89.5	83.0	91.3	94.3	96.1	11.0	11.0	1.9	-0.5
59	97.2	93.7	85.9	93.5	97.4	98.5	13.5	18.5	1.1	-0.6
Avg.	94.3	90.5	83.3	92.3	94.6	96.3	12.6	14.6	1.8	-0.8
Std Dv	2.2	2.5	2.1	1.3	2.1	1.7	1.2	3.1	0.5	0.4

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

60	92.4	89.1	80.5	89.9	91.8	93.3	16.0	16.5	2.1	-0.9
61	94.9	92.1	83.2	91.4	94.7	95.9	16.5	22.0	1.1	-0.9
62	94.1	89.8	80.3	93.7	92.7	93.9	23.0	29.0	1.9	-0.7
63	95.5	92.7	83.2	93.5	94.5	96.0	20.5	21.0	1.5	-0.7
Avg.	94.2	91.0	81.8	92.1	93.4	94.8	19.0	22.1	1.7	-0.8
Std Dv	1.3	1.8	1.6	1.8	1.4	1.4	3.3	5.2	0.5	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

64	94.4	91.3	82.2	91.8	93.1	94.0	16.0	19.5	1.6	-0.7
65	93.5	90.3	81.6	91.1	93.4	94.2	19.0	25.5	0.9	-0.7
66	93.2	90.2	80.6	91.9	91.9	93.0	21.0	19.0	1.6	-0.7
67	91.7	88.8	78.7	89.5	90.4	91.2	24.5	25.5	0.8	-0.7
Avg.	93.2	90.1	80.8	91.1	92.2	93.1	20.1	22.4	1.2	-0.7
Std Dv	1.1	1.0	1.5	1.1	1.4	1.4	3.6	3.6	0.5	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS										
68	91.3	88.6	79.0	89.4	89.2	90.7	28.0	32.5	1.5	-0.8
69	89.4	86.2	76.1	88.1	86.9	88.0	24.5	44.0	1.1	-0.6
70	92.0	89.0	78.8	89.7	89.8	92.1	25.5	29.0	2.3	-0.8
71	90.4	87.0	75.9	88.4	86.9	87.9	29.5	39.5	1.0	-0.6
Avg.	90.8	87.7	77.5	88.9	88.2	89.7	26.9	36.2	1.5	-0.7
Std Dev	1.1	1.3	1.7	0.8	1.5	2.1	2.3	6.8	0.6	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

72	90.6	87.9	77.9	88.0	88.0	89.4	30.0	31.5	1.5	-1.0
73	-	85.5	75.1	86.8	85.4	86.4	28.0	-	1.0	-
74	90.2	87.6	77.2	88.9	88.7	90.5	28.0	25.5	1.9	-0.9
75	88.4	85.6	73.8	86.9	84.8	86.4	43.0	49.0	1.6	-0.6
Avg.	89.7	86.6	76.0	87.7	86.7	88.2	32.2	26.5	1.5	-0.8
Std Dev	1.2	1.3	1.9	1.0	1.9	2.1	7.2	20.3	0.4	0.2

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

76	88.5	86.2	76.5	86.0	86.1	87.3	36.0	39.0	1.2	-1.0
77	-	82.7	70.8	86.7	82.7	83.9	40.5	-	1.2	-
Avg.	88.5	84.5	73.6	86.4	84.4	85.6	38.2	19.5	1.2	-1.0
Std Dev	-	2.5	4.1	0.5	2.4	2.4	3.2	27.6	0.0	-

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/13/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

22	98.4	94.1	87.7	98.1	101.0	101.8	10.5	10.5	0.8	-0.5
24	97.5	92.8	86.3	97.1	100.4	101.2	10.5	10.5	0.8	-0.6
26	97.9	93.5	86.5	96.6	100.1	100.7	11.0	11.0	0.6	-0.5
28	97.5	93.2	87.0	97.8	100.7	101.3	10.5	10.0	0.7	-0.4
Avg.	97.8	93.4	86.9	97.4	100.5	101.3	10.6	10.5	0.7	-0.5
Std Dev	0.4	0.5	0.6	0.6	0.4	0.4	0.2	0.4	0.1	0.1

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

30	97.3	93.1	86.6	96.5	99.6	100.5	12.5	12.0	0.9	-0.5
32	99.1	94.4	86.0	96.4	100.0	100.9	15.0	14.5	0.9	-0.7
34	96.1	92.2	84.1	92.1	97.0	97.8	16.5	16.5	0.8	-0.6
36				NO DATA						
Avg.	97.5	93.3	85.5	95.0	98.9	99.7	14.7	14.3	0.9	-0.6
Std Dev	1.5	1.1	1.3	2.5	1.6	1.7	2.0	2.3	0.1	0.1

APPROACH BEST RATE OF CLIMB

38	97.7	93.5	86.1	95.3	98.6	99.8	14.5	14.5	1.2	-0.4
40	97.1	92.6	85.9	96.8	99.8	100.4	11.0	10.5	0.6	-0.3
42	97.6	93.5	86.6	97.6	100.7	101.3	14.5	11.0	0.6	-0.2
Avg.	97.5	93.2	86.2	96.6	99.7	100.5	13.3	12.0	0.8	-0.3
Std Dev	0.3	0.5	0.4	1.2	1.0	0.8	2.0	2.2	0.3	0.1

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.1 (REV 1)

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
6/10/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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TAKEOFF - HOVER POWER PLUS 10%

21	90.6	85.3	76.8	84.1	90.4	92.3	15.0	16.0	1.9	-0.6
23	90.7	85.4	77.6	84.8	90.9	92.3	13.5	15.5	1.8	-0.6
25	90.6	85.3	77.6	85.3	90.7	91.9	13.0	17.0	1.4	-0.8
27	90.5	85.5	77.8	85.9	90.9	92.2	12.5	15.5	1.2	-0.8
29	90.0	84.7	77.2	85.1	90.5	91.8	12.5	16.5	1.3	-0.8
31	91.8	86.7	78.0	86.2	91.6	92.9	16.5	17.0	1.3	-0.8
33	91.4	86.4	77.9	85.3	91.5	92.5	16.0	16.5	1.1	-0.7
Avg.	90.8	85.6	77.5	85.2	90.9	92.3	14.1	16.3	1.4	-0.7
Std Dv	0.6	0.7	0.4	0.7	0.5	0.4	1.7	0.6	0.3	0.1

TAKEOFF - MAXIMUM POWER

35	90.9	86.1	78.2	84.2	90.4	92.1	15.0	17.5	1.6	-0.9
37	91.2	86.6	78.1	84.7	90.8	92.1	16.5	18.0	1.4	-0.8
39	91.3	86.2	77.6	84.4	90.7	92.0	16.5	17.5	1.3	-0.9
41	90.3	85.6	76.1	85.8	89.0	90.6	17.5	18.5	1.6	-0.7
Avg.	90.9	86.1	77.5	84.8	90.2	91.7	16.4	17.9	1.5	-0.8
Std Dv	0.4	0.4	1.0	0.7	0.8	0.7	1.0	0.5	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS TORQUE >90%

43	NO DATA									
44	95.1	90.9	84.3	97.1	97.2	98.0	10.0	10.5	1.5	-0.6
45	95.3	91.1	83.9	97.2	96.4	97.2	11.0	12.5	1.5	-0.7
46	94.6	90.4	83.9	96.9	96.9	98.2	10.0	10.5	1.3	-0.7
47	96.4	92.5	84.9	97.9	97.5	98.7	11.0	11.5	1.3	-0.8
Avg.	95.3	91.2	84.2	97.3	97.0	98.0	10.5	11.2	1.4	-0.7
Std Dv	0.8	0.9	0.5	0.5	0.5	0.6	0.6	1.0	0.1	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.10

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE - CENTER (FLUSH)

JUNE 26, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

22	102.0	98.2	91.9	102.2	104.8	105.3	10.5	10.5	0.5	-0.3
24	101.2	97.2	91.2	101.9	104.5	105.0	10.0	10.5	0.5	-0.4
26	102.3	98.1	91.5	101.7	104.9	105.3	10.5	11.0	0.5	-0.4
28	101.8	97.7	91.3	102.2	104.5	104.7	10.5	11.5	0.4	-0.3
Avg.	101.8	97.8	91.5	102.0	104.7	105.1	10.4	10.9	0.5	-0.3
Std Dv	0.5	0.5	0.3	0.2	0.2	0.3	0.2	0.5	0.0	0.1

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

30	100.9	97.3	91.0	100.4	103.3	103.6	12.5	13.5	0.3	-0.1
32	101.2	97.2	88.7	99.1	102.7	103.5	15.0	14.0	0.8	-0.3
34	99.2	95.5	87.6	95.7	100.1	100.4	16.0	18.0	0.3	-0.2
36	99.6	95.8	88.4	97.3	101.2	101.7	14.0	14.5	0.5	-0.3
Avg.	100.3	96.4	88.9	98.1	101.8	102.3	14.4	15.0	0.5	-0.2
Std Dv	1.0	1.0	1.4	2.0	1.5	1.5	1.5	2.0	0.2	0.1

APPROACH - BEST RATE OF CLIMB

38	100.7	96.9	88.8	98.0	101.6	102.6	14.5	15.0	1.0	-0.1
40	100.0	96.0	89.1	99.8	102.4	102.9	11.5	11.0	0.5	-0.1
42	101.0	97.0	90.0	100.7	103.2	103.7	14.5	15.5	0.5	-0.2
Avg.	100.6	96.7	89.3	99.5	102.4	103.1	13.5	13.8	0.7	-0.2
Std Dv	0.5	0.5	0.6	1.4	0.8	0.5	1.7	2.5	0.3	0.0

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 10

CENTERLINE - CENTER (FLUSH)

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

TAKEOFF - HOVER POWER PLUS 10X

21	92.1	87.0	78.5	89.7	91.1	93.1	14.5	16.5	2.0	-0.7
23	95.1	89.9	81.9	90.3	95.1	96.4	13.5	15.0	1.3	-0.6
25	95.2	89.6	81.9	91.6	94.9	97.0	13.5	16.0	2.1	-0.8
27	95.9	90.5	82.8	92.6	95.9	97.0	13.0	14.0	2.2	-0.9
29	95.0	89.4	81.8	92.0	95.1	97.3	13.0	14.0	2.2	-0.9
31	95.2	89.8	81.0	92.1	94.5	96.7	16.0	16.5	2.2	-0.9
33	95.0	89.6	81.2	91.1	94.4	96.4	15.5	16.5	2.2	-0.9
Avm.	94.8	89.4	81.3	91.3	94.4	96.4	14.1	15.5	2.0	-0.8
Std Dv	1.2	1.1	1.4	1.1	1.6	1.6	1.2	1.2	0.3	0.1

TAKEOFF - MAXIMUM POWER

35	94.0	89.1	81.3	89.3	92.9	94.5	15.0	17.5	2.4	-1.1
37	94.4	89.7	81.6	89.8	94.0	95.9	15.0	16.0	1.9	-1.0
39	94.2	89.1	80.1	89.0	93.3	95.4	16.5	17.0	2.2	-1.0
41	93.8	88.8	79.4	89.0	92.1	94.4	16.5	17.0	2.3	-1.1
Avm.	94.1	89.2	80.6	89.3	93.1	95.1	15.7	16.9	2.2	-1.0
Std Dv	0.3	0.4	1.0	0.4	0.8	0.7	0.9	0.6	0.2	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS TORQUE > 90X

43	98.5	94.6	87.9	100.3	100.1	101.3	10.0	10.5	1.4	-0.6
44	98.6	94.3	88.0	100.3	100.5	101.3	10.0	10.5	1.3	-0.6
45	98.7	94.7	88.1	100.2	100.3	101.7	10.5	10.5	1.3	-0.4
46	98.1	93.9	87.6	100.2	100.8	102.1	9.0	9.5	1.4	-0.6
47	99.9	96.1	89.0	101.1	101.3	102.5	10.5	10.5	1.1	-0.5
Avm.	98.8	94.7	88.1	100.4	100.6	101.8	10.0	10.3	1.3	-0.5
Std Dv	0.7	0.8	0.5	0.4	0.5	0.5	0.6	0.4	0.1	0.1

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

1/21/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS										
22	98.6	94.1	87.9	98.3	102.0	102.5	10.5	10.0	0.5	-0.3
24	97.8	93.2	87.3	98.0	101.8	102.2	10.5	9.0	0.4	-0.3
26	99.1	94.1	86.8	98.1	102.2	102.8	11.0	9.0	0.6	-0.3
28	98.4	93.7	87.4	98.3	101.8	102.0	9.5	9.5	0.3	-0.2
Avg.	98.5	93.8	87.4	98.2	101.9	102.4	10.4	9.4	0.5	-0.3
Std Dv	0.5	0.4	0.5	0.2	0.2	0.3	0.6	0.5	0.2	0.0

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

30	98.3	93.9	87.4	97.6	101.3	101.6	12.5	11.0	0.3	-0.3
32	98.1	93.4	86.1	97.2	100.7	101.2	13.5	12.5	0.5	-0.3
34	95.6	91.4	83.8	91.7	97.0	97.5	13.0	15.0	0.6	-0.2
36	96.4	91.9	84.4	93.2	97.8	98.3	14.0	14.5	0.5	-0.3
Avg.	97.1	92.6	85.4	94.9	99.2	99.6	13.2	13.2	0.5	-0.3
Std Dv	1.3	1.2	1.7	2.9	2.1	2.0	0.6	1.8	0.1	0.1

APPROACH - BEST RATE OF CLIMB

38	97.3	92.9	84.7	94.5	98.4	98.8	15.0	15.5	0.5	-0.2
40	96.9	92.3	86.5	98.0	100.5	100.8	10.0	10.0	0.3	-0.1
42	97.3	92.8	87.5	98.5	101.4	101.7	10.0	10.0	0.2	-0.2
Avg.	97.1	92.6	85.6	96.3	99.4	99.8	12.5	12.7	0.4	-0.2
Std Dv	0.3	0.4	1.2	2.5	1.5	1.4	3.5	3.9	0.2	0.1

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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TAKEOFF - HOVER POWER PLUS 10%

21	93.1	87.4	78.7	84.8	92.7	94.4	14.5	15.0	1.9	-0.7
23	94.2	88.7	80.2	85.5	94.4	95.5	22.0	21.5	2.2	-0.6
25	93.9	88.1	81.1	87.1	95.3	97.5	11.5	11.0	2.2	-0.8
27	94.3	88.6	81.6	87.2	95.6	97.8	11.5	11.5	2.1	-0.7
29	93.2	87.5	80.9	86.8	95.1	97.3	10.5	10.0	2.2	-0.8
31	92.1	86.4	78.9	86.9	93.2	95.4	13.0	12.0	2.3	-1.0
33	91.9	86.2	78.6	86.2	92.8	94.6	14.5	14.0	1.9	-0.9
Avg.	93.2	87.6	80.0	86.4	94.1	96.1	13.9	13.6	2.1	-0.8
Std Dv	1.0	1.0	1.2	0.9	1.3	1.4	3.9	3.9	0.2	0.1

TAKEOFF - MAXIMUM POWER

35	91.5	86.0	77.9	84.7	91.4	93.4	14.5	14.5	2.3	-1.0
37	91.8	86.6	78.2	85.8	91.7	93.4	20.5	15.0	1.7	-0.9
39	91.6	85.7	77.3	85.3	91.3	93.7	15.0	14.0	2.4	-1.0
41	91.0	85.6	76.4	84.8	89.9	92.0	26.0	25.0	2.4	-1.0
Avg.	91.4	86.0	77.5	85.2	91.1	93.1	19.0	17.1	2.2	-1.0
Std Dv	0.3	0.4	0.8	0.5	0.8	0.8	5.4	5.3	0.3	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS TORQUE > 90%

43	NO DATA									
44	94.4	89.8	83.5	94.1	97.0	98.0	9.5	10.0	1.0	-0.7
45	94.2	89.6	83.5	93.8	96.5	97.7	9.0	11.0	1.2	-0.8
46	94.1	89.4	83.5	93.5	97.1	98.1	8.5	9.5	1.3	-0.7
47	95.6	91.5	84.6	95.0	97.6	98.7	10.5	10.5	1.1	-0.7
Avg.	94.6	90.1	83.8	94.1	97.1	98.1	9.4	10.2	1.1	-0.7
Std Dv	0.7	1.0	0.6	0.6	0.4	0.4	0.9	0.6	0.1	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

22	98.9	94.0	86.7	97.0	101.0	101.6	11.5	11.0	0.6	-0.6
24	98.9	94.3	87.2	97.8	101.3	102.2	10.5	10.5	0.9	-0.6
26	100.1	95.3	89.8	100.5	103.7	104.3	8.5	8.5	0.5	-0.6
28	99.9	95.0	88.6	100.4	103.5	104.2	9.5	8.0	0.8	-0.6
Avg.	99.4	94.6	88.1	98.9	102.4	103.1	10.0	9.5	0.7	-0.6
Std Dv	0.6	0.6	1.4	1.8	1.4	1.4	1.3	1.5	0.2	0.0

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

30	100.1	95.6	89.7	99.8	103.3	104.1	9.0	9.5	0.8	-0.5
32	98.1	93.9	88.1	96.7	100.9	101.9	10.0	10.5	1.0	-0.5
34	97.9	93.6	86.6	96.0	99.8	100.9	13.5	13.0	1.1	-0.6
36	99.5	94.8	87.8	98.0	101.4	102.3	11.0	11.0	0.9	-0.6
Avg.	98.9	94.5	88.1	97.6	101.4	102.3	10.9	11.0	1.0	-0.5
Std Dv	1.1	0.9	1.3	1.7	1.5	1.4	1.9	1.5	0.1	0.1

APPROACH - BEST RATE OF CLIMB

38	98.9	94.3	86.9	98.4	101.6	102.4	11.5	11.0	0.8	-0.4
40	98.3	94.0	87.6	98.4	101.4	102.4	11.5	10.5	1.0	-0.4
42	99.0	94.3	87.3	98.4	101.8	102.6	12.0	10.5	0.8	-0.5
Avg.	98.7	94.2	87.3	98.4	101.6	102.5	11.7	10.7	0.8	-0.4
Std Dv	0.4	0.2	0.3	0.0	0.2	0.1	0.3	0.3	0.1	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/21/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

TAKEOFF - HOVER POWER PLUS 10%

21	94.4	88.6	80.9	87.5	94.7	96.4	15.0	15.5	1.9	-0.7
23	94.5	88.8	82.1	88.7	96.0	97.5	10.0	11.5	1.3	-0.5
25	94.4	89.0	82.5	88.9	96.0	97.3	10.0	11.5	1.3	-0.9
27	94.9	89.3	83.2	89.0	96.7	97.8	9.5	13.5	1.1	-0.8
29	93.8	88.3	81.5	88.2	95.3	96.5	11.0	13.5	1.2	-0.6
31	93.5	88.2	80.8	87.3	94.5	95.6	15.5	15.5	1.1	-0.7
33	93.9	88.6	81.1	87.2	95.1	96.1	15.0	15.0	1.0	-0.7
Avg.	94.2	88.7	81.7	88.1	95.5	96.7	12.3	13.7	1.3	-0.7
Std Dv	0.5	0.4	0.9	0.8	0.8	0.8	2.7	1.7	0.3	0.1

TAKEOFF - MAXIMUM POWER

35	93.3	88.1	81.0	86.9	94.5	95.9	13.5	14.0	1.5	-0.7
37	93.6	88.1	81.6	87.1	95.2	96.4	10.0	13.0	1.2	-0.9
39	93.8	88.4	81.2	87.0	95.1	96.6	12.5	12.0	1.5	-0.7
41	92.7	87.5	79.8	86.2	93.3	94.5	13.5	15.0	1.3	-0.6
Avg.	93.4	88.0	80.9	86.8	94.5	95.8	12.4	13.5	1.4	-0.7
Std Dv	0.5	0.4	0.8	0.4	0.9	0.9	1.7	1.3	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%

43	-	90.2	83.4	95.7	95.6	96.9	16.0	-	1.3	-
44	95.1	90.8	84.5	96.4	97.6	98.3	9.5	11.0	1.0	-0.7
45	94.4	90.4	82.9	95.9	95.2	96.3	14.0	14.0	1.1	-0.7
46	94.1	89.8	83.2	96.2	96.9	98.3	9.0	8.5	1.4	-0.5
47	95.9	92.0	84.8	97.6	97.7	98.7	10.5	11.0	1.1	-0.6
Avg.	94.9	90.6	83.8	96.3	96.6	97.7	11.8	8.9	1.2	-0.6
Std Dv	0.8	0.8	0.8	0.7	1.1	1.0	3.1	5.3	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

Start 3 of 8

TABLE NO. A.7-1.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

22	98.2	93.8	86.9	97.6	100.5	101.4	13.0	12.0	0.9	-0.6
24	98.5	93.8	86.6	98.0	100.4	101.4	12.5	12.0	1.1	-0.5
26	98.3	93.7	86.6	96.9	100.3	101.4	12.0	12.0	1.1	-0.6
28	97.6	93.6	85.5	96.6	99.3	99.9	12.0	11.5	1.1	-0.5
Avg.	98.2	93.7	86.4	97.3	100.1	101.0	12.4	11.9	1.0	-0.5
Std Dv	0.1	0.1	0.6	0.6	0.6	0.7	0.5	0.2	0.1	0.1

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

30	97.0	92.9	85.0	94.4	97.8	99.0	15.0	14.5	1.2	-0.6
32	96.3	92.0	82.7	93.7	96.5	97.6	18.5	18.0	1.1	-0.6
34	95.9	92.2	85.1	93.5	97.9	98.3	12.5	13.0	0.5	-0.6
36	97.0	92.7	84.4	93.7	97.3	98.2	15.0	15.0	1.0	-0.7
Avg.	96.6	92.5	84.3	93.8	97.4	98.3	15.2	15.1	0.9	-0.6
Std Dv	0.6	0.4	1.1	0.4	0.6	0.6	2.5	2.1	0.3	0.1

APPROACH - BEST RATE OF CLIMB

38	97.9	93.1	83.4	95.1	98.0	98.9	17.0	16.5	0.9	-0.6
40	95.3	91.3	81.5	90.3	94.9	95.8	24.0	21.5	0.9	-0.7
42	97.6	93.1	84.4	96.4	99.2	100.1	16.5	14.5	0.9	-0.5
Avg.	96.9	92.5	83.1	93.9	97.4	98.3	19.2	17.5	0.9	-0.6
Std Dv	1.5	1.0	1.5	3.2	2.2	2.2	4.2	3.6	0.0	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 N. EAST

JUNE 26, 1980

EV	EPNL	NEL	D3A(M)	OASPL	PWL(M)	PWLT(M)	DUR(A)	DUR(P)	TC	/**
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TAKEOFF - HOVER POWER PLUS 10%

21	90.3	85.0	75.7	84.5	89.5	91.1	18.5	19.0	1.6	-0.7
23	90.8	85.7	76.8	85.5	90.1	91.6	16.0	17.5	2.0	-0.6
25	90.9	85.8	77.1	85.2	90.4	91.9	22.0	22.5	1.4	-0.7
27	90.5	85.4	76.2	85.6	89.9	91.0	18.5	18.0	1.6	-0.8
29	90.3	85.0	76.3	85.2	89.6	91.2	16.0	21.0	1.6	-0.7
31	90.4	85.4	76.0	85.3	89.0	90.3	22.0	22.5	1.3	-0.7
33	90.5	85.5	76.4	84.1	90.0	91.2	17.5	18.0	1.2	-0.7
Avg.	90.5	85.4	76.4	85.1	89.8	91.2	18.4	19.8	1.5	-0.7
Std Dv	0.2	0.3	0.5	0.5	0.5	0.5	2.5	2.2	0.3	0.1

TAKEOFF - MAXIMUM POWER

35	89.2	84.8	75.1	82.6	87.9	89.3	18.0	20.5	1.4	-0.7
37	89.7	85.3	75.5	83.4	88.7	89.8	19.5	20.5	1.1	-0.6
39	89.9	85.0	75.2	83.3	88.2	89.4	21.5	25.5	1.3	-0.7
41	88.7	84.3	74.4	83.0	87.4	88.5	20.0	22.5	1.1	-0.7
Avg.	89.4	84.8	75.1	83.1	88.1	89.3	19.7	22.2	1.2	-0.7
Std Dv	0.6	0.4	0.4	0.4	0.6	0.5	1.4	2.4	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%

43	95.0	90.9	83.0	96.8	95.4	96.9	12.0	12.5	1.7	-0.8
44	95.4	91.3	84.4	97.9	97.2	98.0	10.0	10.5	1.4	-0.8
45	95.8	91.7	83.5	97.0	96.2	97.8	15.5	15.5	1.6	-0.8
46	94.5	90.2	84.3	96.1	97.0	97.8	9.0	10.5	0.8	-0.7
47	96.4	92.6	84.6	97.5	97.0	98.4	11.5	13.0	1.4	-0.8
Avg.	95.4	91.4	84.0	97.1	96.6	97.8	11.6	12.4	1.4	-0.8
Std Dv	0.7	0.9	0.7	0.7	0.8	0.5	2.5	2.1	0.4	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PWLT CALCULATIONS

TABLE NO. A.7-1.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/24/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164M. NORTH

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

APPROACH - BEST RATE OF CLIMB + 10 KTS

22	97.9	93.5	85.6	94.3	98.1	99.4	13.0	15.5	1.3	-1.1
24	98.2	94.2	87.2	94.6	99.3	100.5	15.5	16.0	1.2	-1.0
26	99.5	95.6	88.4	95.8	100.6	102.3	12.0	11.5	1.8	-1.0
28	98.8	94.7	87.5	95.1	99.7	101.1	14.5	15.0	1.7	-1.0
Avg.	98.6	94.5	87.2	94.9	99.4	100.8	13.7	14.5	1.5	-1.0
Std Dv	0.7	0.9	1.2	0.7	1.1	1.2	1.6	2.0	0.3	0.1

APPROACH - BEST RATE OF CLIMB - 10 KTS

30	94.6	90.7	81.1	91.2	94.5	96.2	22.5	21.0	1.6	-1.1
32	94.8	90.8	85.3	94.0	97.7	98.7	11.0	11.5	0.9	-0.9
34	93.9	90.0	78.5	88.2	90.7	92.9	22.5	22.5	2.9	-1.2
36	94.3	90.7	79.9	88.6	92.6	93.9	22.5	22.5	1.6	-0.9
Avg.	94.4	90.5	81.2	90.5	93.9	95.4	19.6	19.4	1.7	-1.0
Std Dv	0.4	0.3	2.9	2.7	3.0	2.6	5.7	5.3	0.8	0.1

APPROACH - BEST RATE OF CLIMB

38	96.7	92.7	83.9	91.8	96.4	97.3	20.0	20.0	0.9	-0.9
40	94.2	90.5	82.6	92.3	96.2	97.7	22.5	14.5	1.9	-0.7
42	97.3	93.1	85.9	94.6	99.0	100.3	15.5	15.0	1.3	-1.2
Avg.	96.1	92.1	84.1	92.9	97.2	98.4	19.3	16.5	1.4	-0.9
Std Dv	1.6	1.4	1.7	1.5	1.6	1.6	3.5	3.0	0.5	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164M. NORTH

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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TAKEDOFF - HOVER POWER PLUS 10%

21	92.1	86.8	77.9	85.8	91.1	92.7	17.5	18.5	1.5	-1.2
23	92.4	86.9	78.0	86.4	91.3	93.1	16.5	19.5	1.7	-1.3
25	92.9	87.9	79.2	87.5	91.7	93.2	16.0	17.5	1.9	-1.2
27	93.3	88.4	80.4	87.7	93.5	95.3	14.0	15.0	1.8	-1.2
29	92.6	87.6	78.9	86.7	92.1	93.8	16.0	20.0	1.7	-1.2
31	92.2	87.4	78.6	86.4	91.1	92.1	17.5	20.0	1.4	-1.1
33	92.1	87.4	78.3	86.8	91.0	93.0	19.0	19.5	2.0	-1.2
Avg.	92.5	87.5	78.7	86.7	91.7	93.3	16.6	18.6	1.7	-1.2
Std Dv	0.4	0.5	0.9	0.7	0.9	1.0	1.6	1.8	0.2	0.0

TAKEDOFF - MAXIMUM POWER

35	91.8	86.9	78.1	86.9	90.6	92.9	18.0	18.5	2.3	-1.3
37	92.1	87.3	78.1	86.9	90.2	92.5	19.5	20.0	2.2	-1.3
39	-	86.9	77.7	87.2	90.2	92.2	19.5	-	2.0	-
41	91.8	86.8	76.9	86.4	89.3	91.7	22.0	21.5	2.6	-1.3
Avg.	91.9	87.0	77.7	86.8	90.1	92.3	19.7	15.0	2.3	-1.3
Std Dv	0.1	0.2	0.6	0.3	0.6	0.5	1.7	10.1	0.2	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%

43	96.4	92.9	86.3	94.9	98.0	99.2	14.0	15.0	1.2	-0.8
44	96.7	93.2	85.9	97.3	97.7	99.0	12.0	12.0	1.2	-0.6
45	96.5	92.7	86.2	95.0	97.9	99.1	9.5	14.5	1.2	-0.9
46	95.6	92.0	85.5	94.5	97.2	98.1	9.5	13.0	1.3	-0.7
47	96.9	93.4	86.1	94.8	97.7	98.7	14.5	15.5	1.1	-0.8
Avg.	96.4	92.8	86.0	95.3	97.7	98.8	11.9	14.0	1.2	-0.8
Std Dv	0.5	0.5	0.3	1.1	0.3	0.4	2.4	1.5	0.1	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.5
 SIKORSKY UH-60A BLACKHAWK HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 11/24/80

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

APPROACH - BEST RATE OF CLIMB - PLUS 10 KTS

22	92.7	88.7	80.0	89.1	92.9	93.7	15.5	15.5	1.0	-0.5
24	92.5	88.6	80.2	89.5	92.8	93.7	15.0	15.0	1.1	-0.6
26	92.4	88.5	80.3	89.5	92.9	93.9	15.0	15.0	1.0	-0.6
28	91.7	87.9	79.4	88.7	92.0	93.0	16.0	16.0	0.8	-0.8
AVG.	92.3	88.4	80.0	89.2	92.7	93.6	15.4	15.4	1.0	-0.6
Std Dv	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.1	0.1

APPROACH - BEST RATE OF CLIMB - MINUS 10 KTS

30	93.6	89.8	80.0	88.2	93.0	93.7	24.0	22.5	0.9	-0.7
32	94.2	90.2	78.9	88.0	92.4	93.4	23.0	22.5	1.0	-0.5
34	92.9	89.4	80.9	88.2	93.2	93.9	20.5	20.0	0.7	-0.8
36	93.6	89.8	79.9	87.4	92.2	93.7	20.0	19.5	1.4	-0.7
AVG.	93.6	89.8	79.9	87.9	92.7	93.7	21.9	21.1	1.0	-0.7
Std Dv	0.5	0.3	0.8	0.4	0.4	0.2	1.9	1.6	0.3	0.1

APPROACH - BEST RATE OF CLIMB

38	91.3	87.4	77.8	85.8	90.4	91.5	21.5	21.0	1.1	-0.7
40	93.0	89.6	80.1	87.0	92.7	93.8	20.0	19.5	1.0	-0.6
42	92.1	88.4	78.7	87.2	91.5	92.5	20.0	19.5	1.0	-0.5
AVG.	92.1	88.4	78.9	86.7	91.5	92.6	20.5	20.0	1.0	-0.6
Std Dv	0.8	1.1	1.2	0.8	1.2	1.1	0.9	0.9	0.1	0.1

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.5
SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /

TAKEOFF - HOVER POWER PLUS 10%

21	90.2	85.8	76.0	85.0	88.9	90.2	20.5	21.5	1.4	-0.9
23	90.1	86.0	76.2	85.9	89.0	90.4	19.0	19.5	1.7	-0.9
25	90.4	86.3	76.8	85.8	89.5	90.7	20.0	20.5	1.2	-0.8
27	90.4	86.3	77.0	85.7	89.5	91.1	18.5	19.0	1.6	-0.9
29	90.5	86.2	76.6	85.2	89.1	90.5	18.5	19.5	1.6	-0.8
31	89.8	85.7	76.1	85.1	88.8	89.9	21.0	21.5	1.4	-0.7
33	90.5	86.5	77.3	85.0	89.8	91.0	18.0	18.5	1.2	-0.6
Avg.	90.3	86.1	76.6	85.4	89.2	90.6	19.4	20.0	1.4	-0.8
Std Dv	0.3	0.3	0.5	0.4	0.4	0.4	1.1	1.2	0.2	0.1

TAKEOFF - MAXIMUM POWER

35	89.4	85.2	75.4	83.5	88.4	89.5	18.5	18.5	1.2	-0.8
37	89.2	85.1	75.1	84.4	87.8	89.1	19.0	19.5	1.3	-0.8
39	89.2	85.0	74.4	82.7	87.3	88.4	22.0	23.0	1.1	-0.8
41	-	84.4	73.7	84.9	87.0	88.4	24.0	-	1.5	-
Avg.	89.3	84.9	74.7	83.9	87.6	88.9	20.9	15.2	1.3	-0.8
Std Dv	0.1	0.4	0.8	1.0	0.6	0.6	2.6	10.3	0.2	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%

43	94.6	91.4	84.3	94.2	95.8	96.7	11.5	15.5	0.9	-0.6
44	96.1	92.3	85.2	95.2	97.2	98.6	13.0	13.5	1.4	-0.7
45	95.2	91.8	84.3	95.2	95.9	96.5	11.0	16.0	0.5	-0.4
46	95.4	91.9	85.3	95.7	97.0	98.1	15.5	14.5	1.1	-0.9
47	95.7	92.3	85.1	94.9	96.5	97.1	12.0	17.5	0.5	-0.6
Avg.	95.4	91.9	84.9	95.0	96.5	97.4	12.6	15.	0.9	-0.6
Std Dv	0.5	0.4	0.5	0.6	0.6	0.9	1.8	1.5	0.4	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.56

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 58

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

22	96.6	92.6	84.0	92.2	97.0	97.9	15.0	15.0	0.9	-0.2
24	96.6	92.7	84.5	92.9	97.3	98.4	15.0	15.0	1.1	-0.1
26	96.9	92.7	84.7	92.5	97.8	98.8	14.0	14.5	1.0	-0.3
28	95.9	92.0	84.3	91.9	97.2	98.1	15.0	14.5	1.0	-0.4
Avg.	96.5	92.5	84.3	92.4	97.3	98.3	14.7	14.7	1.0	-0.2
Std Dv	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.3	0.1	0.1

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

30	95.3	91.3	82.9	88.4	95.7	97.0	16.5	16.5	1.4	-0.6
32	98.1	93.9	83.6	91.6	97.5	98.6	19.5	18.5	1.3	-0.1
34	97.3	93.3	84.9	91.6	97.8	98.5	16.0	16.0	0.7	-0.2
36	97.6	93.7	84.3	91.3	97.2	98.2	18.0	18.0	1.1	-0.1
Avg.	97.1	93.0	83.9	90.7	97.0	98.1	17.5	17.2	1.1	-0.3
Std Dv	1.2	1.2	0.9	1.5	1.0	0.7	1.6	1.2	0.3	0.3

APPROACH - BEST RATE OF CLIMB

38	96.2	91.8	82.9	89.6	96.7	97.5	19.5	19.0	0.8	-0.3
40	97.0	93.4	85.2	92.1	98.4	99.5	15.0	14.5	1.1	-0.2
42	97.1	92.8	83.4	92.0	97.0	98.1	19.0	19.0	1.2	-0.2
Avg.	96.8	92.7	83.8	91.2	97.3	98.4	17.8	17.5	1.0	-0.2
Std Dv	0.5	0.8	1.2	1.4	0.9	1.0	2.5	2.6	0.2	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.50

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

11/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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TAKEOFF - HOVER POWER PLUS 10%

21	94.3	90.0	81.0	86.4	94.1	95.4	15.0	15.5	1.3	-0.8
23	94.5	90.1	81.1	87.2	94.0	95.3	16.0	16.5	1.3	-0.7
25	95.0	90.6	81.9	87.6	94.7	95.9	15.5	17.0	1.1	-0.5
27	95.2	90.8	82.3	87.6	95.0	96.6	14.5	15.5	1.5	-0.6
29	94.7	90.4	81.4	87.1	94.3	95.4	14.0	15.0	1.4	-0.7
31	94.5	90.0	80.9	86.8	93.9	95.4	17.5	18.0	1.4	-0.7
33	95.4	90.9	82.9	86.7	95.9	96.9	14.5	16.0	1.0	-0.7
Avg.	94.8	90.4	81.6	87.1	94.6	95.8	15.3	16.2	1.3	-0.7
Std Dev	0.4	0.4	0.7	0.5	0.7	0.6	1.2	1.0	0.2	0.1

TAKEOFF - MAXIMUM POWER

35	94.5	89.9	81.1	86.3	94.2	95.6	17.0	17.5	1.4	-0.7
37	94.2	89.6	80.4	86.6	94.3	95.1	15.0	16.0	0.8	-0.7
39	93.9	89.3	79.7	85.2	93.1	94.1	17.5	18.5	1.0	-0.7
41	93.3	88.8	79.0	85.2	92.5	94.0	17.0	17.0	1.5	-0.7
Avg.	94.0	89.4	80.1	85.8	93.5	94.7	16.6	17.2	1.2	-0.7
Std Dev	0.5	0.5	0.9	0.7	0.9	0.8	1.1	1.0	0.3	0.0

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%

43	99.1	96.2	89.4	95.6	100.7	101.8	10.5	12.0	1.0	-0.4
44	99.9	96.5	89.9	98.3	101.4	102.5	11.5	12.0	1.4	-0.6
45	99.4	96.5	90.0	96.5	101.6	102.2	10.0	11.0	0.6	-0.4
46	99.6	96.0	89.9	98.6	101.7	103.0	9.0	10.5	1.3	-0.7
47	99.8	97.0	90.8	96.3	102.4	103.0	9.5	10.5	0.5	-0.4
Avg.	99.6	96.5	90.0	97.1	101.6	102.5	10.1	11.2	1.0	-0.5
Std Dev	0.4	0.4	0.5	1.3	0.6	0.5	1.0	0.8	0.4	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/22/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

22	91.6	88.6	78.2	88.9	89.6	91.5	22.5	22.0	2.1	-0.7
24	92.6	89.6	80.3	88.3	91.5	93.7	19.5	19.0	2.3	-0.9
26	92.5	89.4	81.1	89.3	92.8	94.1	19.0	17.0	1.2	-0.8
28	91.5	88.5	79.5	89.7	91.6	92.5	21.5	20.0	1.0	-0.7
Avg.	92.1	89.0	79.8	89.0	91.4	93.0	20.6	19.5	1.7	-0.8
Std Dv	0.6	0.5	1.2	0.6	1.3	1.2	1.7	2.1	0.7	0.1

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

30	88.9	85.7	74.7	87.3	86.5	88.1	33.5	33.0	1.9	-0.7
32	88.9	85.6	77.7	87.2	89.7	91.2	21.5	21.0	1.5	-1.0
34	89.4	86.4	74.5	86.1	85.6	87.2	32.5	33.0	2.1	-0.8
36	89.3	86.3	74.3	86.6	86.0	87.3	38.5	38.0	1.4	-0.7
Avg.	89.1	86.0	75.3	86.8	86.9	88.5	31.5	31.2	1.7	-0.8
Std Dv	0.3	0.4	1.6	0.5	1.8	1.9	7.2	7.2	0.4	0.2

APPROACH - BEST RATE OF CLIMB

38	90.4	87.3	79.2	86.6	90.9	92.7	22.5	19.0	1.7	-0.6
40	89.4	86.7	75.5	87.6	87.9	88.6	35.5	37.0	0.6	-0.6
42	97.1	93.3	83.2	89.1	94.3	97.1	22.0	22.0	2.9	-1.4
Avg.	92.3	89.1	79.3	87.8	91.0	92.8	26.7	26.0	1.7	-0.9
Std Dv	4.1	3.7	3.9	1.2	3.2	4.2	7.7	9.6	1.2	0.5

* - INDEXES (A, D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE
PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.6
SIKORSKY UH-60A BLACKHAWK HELICOPTER
SUMMARY NOISE LEVEL DATA
AS MEASURED *

DOT/TSC
11/26/80

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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TAKEOFF - HOVER POWER PLUS 10%

21	89.6	84.4	73.9	86.2	86.5	88.6	22.0	21.5	2.3	-1.5
23	89.6	84.0	74.2	86.9	87.1	89.7	21.0	20.0	2.6	-1.5
25	89.2	84.3	73.3	86.9	86.5	88.7	20.5	21.0	2.3	-1.3
27	88.8	83.7	74.3	86.9	86.5	88.8	20.5	20.5	2.3	-1.4
29	88.6	83.5	73.8	87.2	86.8	89.1	20.5	19.5	2.2	-1.3
31	89.5	84.4	74.2	87.4	87.4	89.7	21.5	21.0	2.3	-1.4
33	88.9	83.5	73.6	86.7	86.7	89.1	21.5	20.0	2.4	-1.3
Avg.	89.2	84.0	74.2	86.9	86.8	89.1	21.1	20.5	2.3	-1.4
Std Dv	0.4	0.4	0.5	0.4	0.3	0.4	0.6	0.7	0.1	0.1

TAKEOFF - MAXIMUM POWER

35	89.4	84.1	74.0	87.7	87.1	89.5	22.0	22.0	2.4	-1.4
37	89.7	84.3	74.3	87.6	87.2	89.5	19.5	19.0	2.4	-1.4
39	89.6	84.2	74.6	87.8	87.7	90.0	20.5	20.0	2.4	-1.5
41	89.7	84.4	73.5	87.6	87.5	90.1	23.0	19.5	2.6	-1.3
Avg.	89.6	84.3	74.1	87.7	87.4	89.8	21.2	20.1	2.4	-1.4
Std Dv	0.1	0.1	0.5	0.1	0.3	0.3	1.6	1.3	0.1	0.1

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%

43	94.1	90.0	81.6	91.6	93.1	94.8	23.5	24.5	1.8	-0.8
44	94.5	91.5	83.4	92.9	94.3	96.2	15.5	15.5	1.9	-0.7
45	94.3	89.8	82.3	92.1	93.4	95.3	16.5	20.5	1.9	-0.9
46	93.8	90.5	83.6	91.3	94.6	96.0	11.0	14.5	1.4	-0.8
47	94.3	90.0	82.1	92.6	92.8	94.7	15.5	18.5	1.8	-0.9
Avg.	94.2	90.3	82.6	92.1	93.6	95.4	16.4	18.7	1.8	-0.8
Std Dv	0.3	0.7	0.9	0.7	0.8	0.7	4.5	4.0	0.2	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.1
 BELL 206-L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/24/80

SITE: 1

CENTERLINE - CENTER

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	90.9	87.3	81.1	88.6	93.9	95.0	10.5	10.0	1.1	-0.5
2	89.3	85.6	79.9	88.1	92.8	93.9	8.5	8.5	1.1	-0.8
3	90.5	86.9	80.8	88.6	93.9	95.1	9.0	8.5	1.2	-0.6
4	90.3	86.7	81.5	89.4	94.4	95.5	8.0	7.5	1.2	-0.7
Avg.	90.2	86.6	80.8	88.7	93.7	94.8	9.0	8.6	1.1	-0.7
Std Dv	0.7	0.7	0.7	0.5	0.7	0.7	1.1	1.0	0.1	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	86.5	83.3	73.9	83.6	86.3	87.3	19.5	19.5	0.9	-0.8
6	83.6	80.5	71.4	82.4	83.2	83.9	19.0	19.0	0.7	-0.8
7	85.7	82.4	72.8	81.7	84.8	85.9	23.5	23.0	1.2	-0.7
8	84.4	81.2	72.0	82.5	83.9	84.8	18.5	18.5	1.3	-0.9
Avg.	85.0	81.8	72.5	82.5	84.6	85.4	20.1	20.0	1.0	-0.8
Std Dv	1.3	1.2	1.1	0.8	1.3	1.4	2.3	2.0	0.2	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	83.3	80.3	69.5	78.4	81.2	82.3	27.5	29.0	0.9	-0.8
10	82.7	79.8	70.1	80.0	81.0	83.0	22.5	22.5	1.9	-0.9
11	83.3	80.6	69.0	79.7	80.9	82.2	30.5	29.5	1.3	-0.8
12	81.3	78.3	67.9	78.1	79.7	80.8	27.0	26.0	1.1	-0.8
Avg.	82.6	79.8	69.1	79.1	80.7	82.1	26.9	26.7	1.3	-0.8
Std Dv	0.9	1.0	0.9	0.9	0.7	0.9	3.3	3.2	0.5	0.0

* -- INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.1
BELL 206L HELICOPTER
SUMMARY NOISE LEVEL DATA
AS MEASURED *

DOT/TSC
11/24/80

SITE: 1

CENTERLINE - CENTER

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS										
13	80.4	77.8	65.3	74.7	76.9	78.2	55.5	42.0	1.3	-0.5
14	78.5	75.7	64.5	74.5	76.3	77.5	38.0	37.0	1.2	-0.7
15	79.9	77.1	64.3	74.6	76.0	77.1	48.5	58.0	1.1	-0.8
16	78.6	75.7	63.8	74.7	75.3	76.5	38.0	41.0	1.2	-0.9
Avg.	79.3	76.6	64.5	74.6	76.1	77.3	45.0	44.5	1.2	-0.7
Std Dev	0.9	1.1	0.6	0.1	0.6	0.7	8.6	9.3	0.1	0.2

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

17	77.2	74.6	61.8	71.2	73.1	74.6	57.5	52.5	1.5	-0.9
18	75.8	73.3	60.2	70.9	71.5	72.7	49.0	48.0	1.8	-1.0
19	76.7	74.2	60.8	70.3	72.2	73.6	63.0	62.5	1.3	-0.9
Avg.	76.6	74.0	60.9	70.8	72.3	73.6	56.5	54.3	1.6	-0.9
Std Dev	0.7	0.6	0.8	0.4	0.8	1.0	7.1	7.4	0.3	0.0

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

R

TABLE NO. A.6-2.1G
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 12/ 2/80

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	94.4	90.4	84.7	92.3	97.3	98.7	8.5	9.0	1.4	-0.4
2	92.8	89.0	83.5	91.9	96.3	97.6	8.0	7.5	1.3	-0.6
3	93.9	90.1	84.3	92.6	96.8	98.4	8.5	8.0	1.7	-0.6
4	93.6	90.1	84.8	93.1	97.6	98.8	8.0	7.0	1.1	-0.5
Avg.	93.7	89.9	84.3	92.5	97.0	98.3	8.2	7.9	1.4	-0.5
Std Dv	0.7	0.6	0.6	0.5	0.6	0.5	0.3	0.9	0.2	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	89.9	86.8	78.4	87.9	90.7	91.8	16.0	15.5	1.2	-0.2
6	87.2	84.2	74.9	86.1	86.7	87.8	18.0	17.5	1.2	-0.4
7	89.0	85.6	76.4	85.4	88.6	90.2	20.0	18.0	1.9	-0.4
8	87.6	84.5	75.4	86.0	87.5	88.8	18.0	17.0	1.3	-0.5
Avg.	88.4	85.2	76.3	86.3	88.4	89.6	18.0	17.0	1.4	-0.4
Std Dv	1.3	1.2	1.5	1.1	1.7	1.8	1.6	1.1	0.4	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	86.8	83.8	73.7	82.2	85.6	86.8	25.0	24.0	1.2	-0.3
10	85.7	82.9	72.5	83.2	84.3	85.7	23.5	23.0	1.3	-0.5
11	86.5	83.9	73.1	82.8	85.1	86.4	27.0	25.0	1.3	-0.2
12	84.8	82.0	71.9	82.1	83.8	84.9	25.5	23.5	1.2	-0.4
Avg.	86.0	83.1	72.8	82.6	84.7	85.9	25.2	23.9	1.3	-0.3
Std Dv	0.9	0.9	0.8	0.5	0.8	0.8	1.4	0.9	0.1	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.1G
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 12/ 2/80

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

13	84.2	81.3	69.4	78.7	81.2	82.9	37.0	34.0	1.6	-0.5
14	82.7	79.9	68.5	79.0	80.6	81.6	37.5	34.5	1.0	-0.5
15	83.6	80.9	68.6	78.4	80.6	81.8	40.0	40.0	1.4	-0.2
16	84.1	81.5	70.0	79.3	81.6	82.7	33.0	35.5	1.0	-0.6
Avg.	83.7	80.9	69.2	78.9	81.0	82.2	36.9	36.0	1.3	-0.5
Std Dv	0.7	0.7	0.7	0.4	0.5	0.7	2.9	2.7	0.3	0.2

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

17	81.3	78.6	65.5	75.7	77.0	78.8	56.0	43.5	1.8	-0.7
18	79.9	77.6	64.8	75.4	76.2	77.8	47.5	40.0	1.6	-0.6
19	-	78.2	65.3	74.7	76.8	78.4	50.0	-	1.6	-
Avg.	80.6	78.1	65.2	75.3	76.7	78.3	51.2	27.8	1.7	-0.6
Std Dv	0.9	0.5	0.4	0.5	0.4	0.5	4.4	24.2	0.1	0.1

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.1H
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 12/ 2/80

SITE: 1H CENTERLINE - CENTER (10 METER) JUNE 26, 1980

EV EPNL NEL DBA(H) OASPL PNL(H) PNLT(H) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	92.2	88.1	82.7	88.2	94.3	97.5	8.0	7.0	1.2	-0.9
2	91.1	86.8	81.4	87.4	95.4	96.3	8.0	6.5	1.4	-0.9
3	92.3	88.0	82.9	88.1	94.4	97.7	7.0	6.0	1.4	-1.0
4	92.3	87.9	83.2	89.0	94.9	98.2	7.0	6.0	1.3	-0.7
Ave.	92.0	87.7	82.6	88.2	94.2	97.4	7.5	6.4	1.3	-0.9
Std Dev	0.4	0.4	0.7	0.6	0.7	0.8	0.6	0.5	0.1	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	87.3	84.0	75.4	83.2	88.2	89.2	16.0	14.0	1.1	-0.6
6	83.1	79.8	72.1	77.0	84.3	85.3	13.5	13.0	1.0	-0.7
7	84.8	81.4	73.0	76.3	85.4	86.5	17.0	14.5	1.2	-1.0
8	83.6	80.2	72.3	76.7	84.7	85.8	14.0	13.0	1.2	-0.8
Ave.	84.7	81.3	73.2	78.3	85.6	86.7	15.1	13.6	1.1	-0.8
Std Dev	1.9	1.9	1.5	3.3	1.7	1.8	1.7	0.7	0.1	0.2

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	83.6	80.6	69.9	77.8	82.0	83.0	26.0	24.0	1.6	-0.6
10	83.3	80.5	69.9	78.4	81.8	82.9	27.0	25.5	1.1	-0.6
11	-	79.3	68.1	78.1	80.1	81.3	27.5	-	1.2	-
12	80.7	77.6	67.9	77.2	79.9	80.7	26.0	25.5	0.7	-0.6
Ave.	82.6	79.5	68.9	77.9	80.9	82.0	26.6	18.7	1.2	-0.6
Std Dev	1.6	1.4	1.1	0.5	1.1	1.2	0.7	12.5	0.3	0.0

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.1H

BELL 206L HELICOPTER
SUMMARY NOISE LEVEL DATADOT/TSC
12/ 2/80

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

13	79.8	76.8	64.7	73.9	76.6	78.0	38.0	35.0	1.8	-0.8
14	77.6	74.6	63.4	73.5	75.4	76.1	38.0	37.5	0.7	-0.6
15	78.8	76.0	63.3	74.1	75.4	76.5	44.5	44.0	1.6	-0.4
16	77.9	74.9	63.2	74.2	75.3	76.3	40.0	38.5	0.9	-0.6
Ave.	78.5	75.6	63.7	73.9	75.7	76.7	40.1	38.7	1.3	-0.6
Std Dev	1.0	1.0	0.7	0.3	0.6	0.9	3.1	3.8	0.5	0.2

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

17	74.8	73.6	60.6	70.6	72.5	73.7	60.5	57.5	2.3	-1.0
18	75.9	72.9	59.6	70.4	71.2	72.5	53.5	51.5	1.5	-0.6
19	76.5	73.5	60.2	70.3	72.0	73.1	61.5	61.5	1.9	-0.7
Ave.	74.4	73.3	60.1	70.4	71.9	73.1	58.5	56.8	1.9	-0.8
Std Dev	0.5	0.4	0.5	0.1	0.6	0.6	4.4	5.0	0.4	0.2

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED
FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE
PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.2
 BELL 204L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/25/80

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	92.1	88.5	82.1	89.7	95.1	94.0	10.5	9.5	0.8	-0.6
2	90.8	84.9	81.5	89.4	94.4	95.3	8.5	7.5	1.2	-0.8
3	91.6	88.0	81.9	90.2	94.9	95.9	9.5	9.0	1.0	-0.6
4	91.3	87.5	82.2	90.6	95.5	94.5	8.0	7.0	1.0	-0.6
Avg.	91.5	87.7	81.9	90.0	95.0	95.9	9.1	8.2	1.0	-0.7
Std Dv	0.6	0.7	0.3	0.5	0.4	0.5	1.1	1.2	0.2	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	87.2	83.8	74.7	83.9	87.3	88.2	19.0	18.5	0.9	-0.8
6	84.8	81.6	73.6	83.4	85.8	86.6	17.0	16.5	0.8	-0.8
7	86.6	83.2	73.6	83.1	86.1	87.2	24.0	20.5	1.1	-0.7
8	85.0	81.8	73.1	82.9	85.0	85.7	19.0	19.5	1.3	-0.7
Avg.	85.9	82.6	73.7	83.3	86.0	86.9	19.7	18.7	1.0	-0.7
Std Dv	1.2	1.1	0.7	0.5	0.9	1.0	3.0	1.7	0.2	0.0

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	84.1	81.1	70.1	79.7	82.3	83.3	29.0	27.0	1.0	-0.7
10	83.0	80.3	70.7	80.2	82.3	83.2	24.5	24.0	0.7	-0.8
11	83.8	81.2	70.6	80.3	82.9	83.9	31.5	26.5	1.1	-0.7
12	82.3	79.2	69.8	79.7	81.6	82.6	24.5	23.5	1.0	-0.7
Avg.	83.3	80.5	70.3	80.0	82.3	83.3	27.4	25.2	0.9	-0.7
Std Dv	0.8	0.9	0.4	0.3	0.5	0.5	3.5	1.8	0.2	0.0

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.2
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/25/80

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS										
13	81.7	78.9	64.7	76.3	78.6	79.8	50.0	49.5	1.3	-0.8
14	79.4	76.6	64.9	76.1	76.4	77.2	39.5	39.5	0.7	-0.8
15	80.8	78.0	64.9	75.6	77.0	78.3	47.0	44.5	1.3	-0.7
16	79.6	76.8	64.9	76.1	76.4	77.5	40.0	38.0	1.1	-0.8
Avg.	80.4	77.6	65.3	76.0	77.1	78.2	44.1	42.9	1.1	-0.8
Std Dv	1.1	1.1	0.9	0.3	1.0	1.1	5.2	5.2	0.3	0.0

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

17	79.1	76.0	62.6	73.4	74.6	76.2	54.5	53.5	1.9	-1.0
18	77.1	74.4	61.8	72.0	73.4	74.7	49.0	49.5	1.2	-0.8
19	-	75.1	61.9	71.9	73.6	74.9	57.0	-	1.2	-
Avg.	78.1	75.2	62.1	72.4	73.9	75.3	53.5	54.3	1.4	-0.9
Std Dv	1.4	0.8	0.4	0.9	0.6	0.8	4.1	29.8	0.4	0.1

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.3
BELL 206L HELICOPTER
SUMMARY NOISE LEVEL DATA
AS MEASURED *

DOT/TSC
11/25/80

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
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300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	91.2	87.6	80.5	89.1	93.3	94.4	12.0	12.5	1.1	-0.6
2	89.9	86.1	80.3	88.7	93.0	93.8	9.5	10.0	0.8	-0.8
3	91.1	87.3	80.5	89.5	93.7	94.8	11.0	10.0	1.2	-0.7
4	90.9	87.4	82.2	90.4	94.9	95.5	7.5	8.0	0.6	-0.7
Avg.	90.8	87.1	80.9	89.4	93.7	94.6	10.0	10.1	0.9	-0.7
Std Dv	0.6	0.7	0.9	0.7	0.8	0.7	2.0	1.8	0.3	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	87.2	83.8	74.1	84.2	86.2	87.4	19.5	23.0	1.2	-0.8
6	84.3	81.1	72.1	84.0	83.9	85.1	19.5	19.0	1.2	-0.8
7	86.4	83.0	72.9	82.2	85.0	86.4	25.0	24.0	1.5	-0.8
8	85.0	81.6	73.7	83.6	85.3	86.3	16.0	18.0	0.9	-0.9
Avg.	85.7	82.4	73.2	83.5	85.1	86.3	20.0	21.0	1.2	-0.8
Std Dv	1.3	1.2	0.9	0.9	1.0	0.9	3.7	2.9	0.2	0.0

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	83.8	80.8	69.1	79.7	81.2	82.6	32.5	30.5	1.4	-1.0
10				NO DATA						
11	83.5	80.9	69.9	80.2	80.7	81.8	31.0	32.0	1.3	-0.7
12	82.3	79.0	69.3	79.7	80.4	81.9	25.0	29.0	1.6	-0.8
Avg.	83.2	80.2	69.4	79.9	80.8	82.1	29.5	30.5	1.4	-0.8
Std Dv	0.8	1.1	0.4	0.3	0.4	0.4	4.0	1.5	0.1	0.1

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.3

BELL 204L HELICOPTER

DOT/TSC

SUMMARY NOISE LEVEL DATA

1/21/81

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

13	-	78.2	65.1	74.1	77.0	78.6	47.5	-	1.8	-
14	-	76.5	64.7	74.6	76.1	77.2	41.0	-	1.2	-
15	-	77.5	64.7	75.6	78.8	80.4	41.0	-	1.6	-
16	80.6	77.0	64.9	76.3	78.2	80.9	44.0	33.5	2.5	-0.6
Avg.	80.6	77.3	64.8	76.1	77.5	79.3	43.4	8.4	1.8	-0.6
Std Dv	-	0.7	0.2	0.4	1.1	1.7	3.1	16.7	0.6	-

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

17	-	75.4	61.6	73.2	73.4	74.7	58.5	-	1.5	-
18	-	74.1	61.5	72.5	73.0	74.8	46.5	-	1.7	-
19	-	75.1	60.6	71.7	72.8	74.5	63.5	-	1.7	-
Avg.	-	74.6	61.0	72.1	72.9	74.6	55.0	0.0	1.7	-
Std Dv	0.0	0.7	0.7	0.5	0.1	0.2	12.0	0.0	0.0	0.0

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.4
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/24/80

SITE: 4

SIDELINE - 164M. NORTH

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /A**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	88.4	85.3	76.9	84.8	88.1	89.4	19.0	18.5	1.5	-0.7
2	87.8	83.8	76.7	87.2	88.7	90.8	13.0	12.0	2.2	-0.6
3	88.3	85.3	76.9	86.8	88.2	89.3	18.0	18.5	1.2	-0.7
4	88.2	84.4	76.7	89.9	88.9	90.4	13.5	12.5	1.7	-0.5
Avg.	88.2	84.7	76.8	88.2	88.5	90.0	15.9	15.4	1.6	-0.6
Std Dv	0.3	0.7	0.1	1.6	0.4	0.7	3.1	3.6	0.4	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	88.1	84.8	76.6	87.5	88.7	90.2	17.5	18.0	1.9	-0.7
6	84.9	81.9	72.8	86.0	84.1	85.6	20.0	20.0	2.0	-0.8
7	86.9	84.0	75.1	85.9	86.7	88.1	25.0	25.5	1.4	-0.9
8	85.0	82.1	73.0	86.8	84.7	85.9	18.0	19.5	1.2	-0.6
Avg.	86.2	83.2	74.4	86.5	86.0	87.5	20.1	20.7	1.6	-0.7
Std Dv	1.5	1.4	1.8	0.7	2.1	2.2	3.4	3.3	0.4	0.1

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	85.5	82.2	71.5	83.1	84.4	86.0	26.5	23.5	1.7	-0.9
10	83.6	80.5	70.1	84.8	81.7	83.2	26.5	29.5	1.4	-0.6
11	85.8	82.5	71.9	83.1	85.0	86.7	30.5	21.5	1.8	-0.9
12	82.8	80.2	70.4	82.9	82.3	83.6	26.0	25.0	1.4	-0.6
Avg.	84.4	81.3	71.0	83.5	83.4	84.9	27.4	24.9	1.6	-0.8
Std Dv	1.5	1.1	0.9	0.9	1.6	1.8	2.1	3.4	0.2	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /A , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.4
BELL 206L HELICOPTER
SUMMARY NOISE LEVEL DATA
AS MEASURED *

DOT/TSC
11/24/80

SITE: 4

SIDELINE - 164M. NORTH

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	DASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS										
13	82.9	79.7	67.9	79.9	80.7	82.6	37.0	32.5	1.9	-0.8
14	80.4	77.7	66.7	80.0	78.1	79.0	34.5	39.5	0.9	-0.6
15	82.6	79.6	67.6	79.4	80.4	82.5	42.0	30.0	2.0	-0.5
16	80.5	77.8	65.5	80.9	77.0	78.1	40.5	42.5	1.2	-0.7
Avg.	81.6	78.7	66.9	80.1	79.1	80.6	33.5	36.1	1.5	-0.7
Std Dv	1.4	1.1	1.1	0.6	1.8	2.3	3.4	5.9	0.6	0.1

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS										
17	80.8	77.6	64.9	76.8	77.5	79.5	40.5	55.5	2.1	-1.0
18	78.4	75.4	62.6	76.9	74.2	75.1	54.0	54.5	1.0	-0.6
19	79.8	76.9	63.9	75.3	76.2	78.2	57.0	42.0	2.1	-0.7
Avg.	79.7	76.6	63.8	76.3	76.0	77.6	57.2	50.7	1.7	-0.8
Std Dv	1.2	1.1	1.1	0.9	1.7	2.3	3.3	7.5	0.6	0.2

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.5
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/24/80

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**
 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	87.6	84.2	76.3	88.5	88.5	89.6	14.5	13.5	1.1	-0.6
2	87.0	84.2	76.7	86.1	88.2	89.8	13.5	12.5	1.9	-0.9
3	87.9	84.6	76.7	88.7	88.9	90.1	14.0	12.5	1.2	-0.6
4	87.6	84.9	77.1	86.7	88.6	90.2	13.5	12.5	1.7	-0.7
Avg.	87.5	84.5	76.7	87.5	88.5	89.9	13.9	12.7	1.5	-0.7
Std Dv	0.3	0.3	0.3	1.3	0.3	0.3	0.5	0.5	0.4	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	85.4	82.4	73.3	86.4	85.1	86.7	20.5	21.0	1.5	-0.7
6	86.3	82.9	74.2	85.0	86.4	88.1	15.5	13.5	1.8	-1.1
7	84.9	82.3	72.7	84.9	84.8	86.1	26.0	20.5	1.4	-0.5
8	86.3	83.0	73.9	84.7	86.1	88.0	16.5	15.0	1.8	-1.1
Avg.	85.7	82.7	73.5	85.3	85.6	87.2	19.6	17.5	1.6	-0.9
Std Dv	0.7	0.3	0.6	0.8	0.8	1.0	4.8	3.8	0.2	0.3

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	82.3	79.8	68.4	82.0	80.2	81.3	33.5	28.5	1.1	-0.7
10	84.4	81.4	71.8	81.6	82.6	84.1	22.5	22.5	1.6	-0.8
11	82.4	79.9	68.3	82.4	79.8	81.5	34.5	34.5	1.7	-0.7
12	83.3	80.1	70.4	80.9	82.8	83.7	23.0	21.0	1.2	-1.0
Avg.	83.1	80.3	69.7	81.7	81.3	82.7	28.4	26.6	1.4	-0.8
Std Dv	1.0	0.7	1.7	0.6	1.6	1.5	6.5	6.2	0.3	0.2

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.5
 BELL 204L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/24/80

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS										
13	81.1	78.5	65.3	78.1	74.9	77.7	55.0	49.5	1.4	-0.7
14	80.8	77.5	66.6	76.2	79.0	79.7	30.0	26.5	0.9	-1.1
15	80.1	77.7	64.4	77.8	76.2	77.1	50.5	49.5	0.9	-0.7
16	80.6	77.5	66.1	76.8	78.2	79.8	32.0	29.0	1.7	-1.1
Avg.	80.6	77.8	65.6	77.2	77.5	78.6	41.9	38.6	1.2	-0.9
Std Dv	0.4	0.5	0.9	0.9	1.3	1.4	12.7	12.6	0.4	0.2

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

17	78.6	75.8	62.8	73.1	74.1	75.1	56.0	55.0	1.5	-1.0
18	77.9	74.9	62.7	73.3	74.5	75.8	43.0	41.0	1.4	-1.1
19	77.7	75.1	61.0	73.5	72.7	74.1	60.0	54.0	1.4	-0.8
Avg.	78.1	75.3	62.2	73.3	73.8	75.0	53.0	50.0	1.4	-1.0
Std Dv	0.5	0.5	1.0	0.2	0.9	0.9	8.9	7.8	0.1	0.2

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.50
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 11/26/80

AS MEASURED *

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	91.0	87.2	80.3	88.5	92.4	93.3	11.0	11.5	0.9	-0.5
2	90.6	87.2	80.7	87.1	93.0	94.3	10.5	10.0	1.5	-0.9
3	91.4	87.6	80.6	89.1	92.5	93.5	10.5	11.5	1.1	-0.4
4	91.0	87.4	80.7	87.5	93.3	94.6	10.5	10.0	1.4	-0.8
Avg.	91.0	87.3	80.6	88.1	92.8	93.9	10.6	10.7	1.2	-0.6
Std Dev	0.3	0.2	0.2	0.9	0.4	0.6	0.2	0.9	0.3	0.2

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	88.8	86.2	77.6	87.2	88.8	90.1	16.0	16.5	1.2	-0.4
6	89.6	86.3	77.9	86.3	89.9	91.6	14.5	13.0	1.8	-1.0
7	88.3	85.7	77.1	85.7	88.5	89.5	16.5	17.0	0.9	-0.3
8	89.7	86.6	78.1	86.2	90.4	92.1	14.5	12.5	1.7	-0.9
Avg.	89.1	86.2	77.7	86.4	89.4	90.8	15.4	14.7	1.4	-0.6
Std Dev	0.7	0.4	0.4	0.6	0.9	1.2	1.0	2.3	0.4	0.3

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	86.4	83.9	73.4	83.3	84.9	85.7	25.0	25.0	1.1	-0.3
10	87.9	85.0	74.4	83.1	86.2	87.9	23.5	22.5	1.7	-0.9
11	85.8	83.5	72.9	83.3	83.8	85.0	24.0	26.0	1.3	-0.3
12	86.8	83.7	73.6	82.5	85.5	86.9	23.5	21.5	1.6	-1.0
Avg.	86.7	84.1	73.6	83.1	85.1	86.4	24.0	23.7	1.4	-0.7
Std Dev	0.9	0.7	0.6	0.4	1.0	1.3	0.7	2.1	0.3	0.4

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.5G
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/26/80

SITE: 50

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS										
13	84.2	81.8	69.6	79.4	81.7	82.5	37.0	35.5	0.7	-0.4
14	83.8	80.8	70.1	78.3	82.0	83.4	28.5	25.5	1.5	-0.9
15	83.5	81.4	68.7	79.5	80.4	81.0	39.5	38.0	0.9	-0.2
16	84.1	81.1	70.0	78.8	81.4	82.8	31.0	28.5	1.7	-0.9
Avg.	83.9	81.3	69.6	79.0	81.4	82.4	34.0	31.9	1.2	-0.6
Std Dv	0.3	0.4	0.6	0.6	0.7	1.0	5.1	5.9	0.5	0.4

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

17	82.0	79.3	67.8	75.9	79.6	81.2	40.5	36.5	1.7	-0.7
18	81.5	78.5	66.9	75.5	78.4	80.1	37.0	32.0	1.7	-1.1
19	81.1	78.8	65.8	75.4	77.4	78.6	50.0	45.5	1.1	-0.4
----- NO DATA -----										
Avg.	81.5	78.9	66.8	75.6	78.5	80.0	42.5	38.0	1.5	-0.7
Std Dv	0.5	0.4	1.0	0.3	1.1	1.3	6.7	6.9	0.3	0.4

* - INDEXES (A,D, ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 HZ AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.6
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/26/80

SITE: 6

SIDELINE -- 284 M. NORTH

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

1	85.4	83.2	72.4	80.5	83.3	84.8	27.5	27.0	1.5	-0.3
2	82.7	79.7	70.6	82.5	81.8	82.7	19.0	21.5	1.2	-0.3
3	85.1	82.7	72.4	80.2	83.0	84.5	25.0	25.0	1.5	-0.2
4	83.2	80.4	71.4	82.8	82.4	83.8	18.5	18.0	1.5	0.1
Avg.	84.1	81.5	71.7	81.5	82.6	83.9	22.5	22.9	1.4	-0.2
Std Dv	1.3	1.7	0.9	1.3	0.6	0.9	4.5	4.0	0.2	0.1

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

5	85.2	82.5	72.4	83.7	83.2	84.9	26.0	27.5	1.9	-0.8
6	82.6	80.0	70.2	82.7	81.4	82.5	23.5	25.0	1.1	-0.6
7	84.2	81.5	71.0	81.8	81.7	83.5	28.5	31.0	1.8	-0.9
8	82.4	79.6	69.5	83.3	81.4	82.5	24.5	23.5	1.2	-0.5
Avg.	83.6	80.9	70.8	82.8	81.9	83.4	25.6	26.7	1.5	-0.7
Std Dv	1.3	1.3	1.3	0.8	0.8	1.1	2.2	3.3	0.4	0.2

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

9	83.6	80.6	70.3	81.9	81.7	83.1	27.5	30.0	1.3	-0.6
10	81.4	78.6	67.8	82.8	79.6	81.0	29.5	27.5	1.4	-0.6
11	84.0	81.0	70.1	82.2	82.1	83.5	32.0	31.5	1.4	-0.9
12	80.7	78.1	68.0	80.6	79.9	81.6	24.5	23.0	1.7	-0.5
Avg.	82.4	79.6	69.1	81.9	80.8	82.3	28.4	28.0	1.5	-0.6
Std Dv	1.6	1.5	1.4	0.9	1.3	1.2	3.2	3.7	0.2	0.2

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.6
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/26/80

SITE: 4

SIDELINE - 284 M. NORTH

JUNE 26, 1980

EV	EPNL	NEL	DBA(M)	OASPL	PNL(M)	PNLT(M)	DUR(A)	DUR(P)	TC	/**
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS										
13	81.3	78.4	66.4	78.9	78.0	79.3	41.0	46.0	1.3	-0.8
14	78.8	76.6	65.0	78.6	75.8	77.0	37.5	41.0	1.2	-0.5
15	81.8	79.0	67.4	79.4	79.3	80.8	38.0	34.5	1.5	-0.9
16	79.4	76.9	64.6	79.9	75.8	77.1	40.5	39.0	1.3	-0.3
Avg.	80.3	77.7	65.8	79.2	77.2	78.5	39.2	40.1	1.3	-0.6
Std Dv	1.4	1.2	1.3	0.6	1.7	1.8	1.8	4.8	0.1	0.3

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

17	79.5	76.3	63.4	76.0	75.4	77.0	50.0	45.0	1.6	-0.9
18	77.6	74.9	63.5	76.5	74.7	75.9	47.0	46.5	1.3	-0.7
19	79.9	76.6	62.9	75.4	75.4	77.4	63.5	60.0	1.9	-0.7
Avg.	79.0	75.9	63.2	76.0	75.2	76.8	53.5	50.5	1.6	-0.8
Std Dv	1.2	0.9	0.3	0.6	0.4	0.8	8.8	8.3	0.3	0.1

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

APPENDIX B

CORRECTED ACOUSTICAL DATA

Appendix B

Appendix B provides corrected acoustical data (previously discussed in Section 3) using "As Measured" acoustical data from Appendix A and applying adjustments as follows:

1. Appendix C position and tracking data along with Appendix E meteorological data are used to correct dBA(m) and PNLTM for distance deviations from reference paths and differences between test day absorption and reference day absorption. This correction is identified as Delta 1(P) for PNLTM and Delta 1(A) for dBA. Concise details for computing Delta 1 corrections are provided in FAR-36.
2. The Delta 2(P) and Delta 2(A) corrections are applied to EPNL and NEL respectively in order to account for changes in event duration associated with deviations in altitude from reference conditions. The Delta 2 corrections are computed as follows:

$$\text{Delta 2} = k \log(d1/d2)$$

where k has traditionally been taken as equal to 10. In hope of improving upon the performance of $k=10$, the constants $k(P)$ and $k(A)$ have been derived for each specific event and used to compute Delta 2(P) and Delta 2(A) respectively. The derivation is consistent with FAR-36 data correction assumptions and simple Exposure Level or energy dose as equal to the maximum transient sound level plus a function of the event duration expressed in seconds. The constant $k(A)=10$ can be re-evaluated by using measured SEL, dBAM and DUR then solving for $k(A)$, $k(A)=SEL-dBAM/\log(DUR)$. $k(A)$ is significant as an indicator of event duration influence on Sound Exposure Level. If we assume (as in FAR-36) that event duration is proportional to distance then the values of $k(A)$ can be used to account for changes in SEL with changes in distance.

The same line of reasoning applies to EPNL, PNLTM and DUR(P) with an adjustment necessary to account for the 10 second normalization duration time factor (T) appearing in the EPNL calculation. Thus $k(P)=(EPNL+10-PNLTM)/(\log DUR(P))$. It is anticipated that this procedure for computing DELTA 2 will be more accurate than the use of $10 \log (d1/d2)$.

In addition to the adjustments discussed above we have provided certain key position information. The final four columns on each table show:

1. the actual closest point of approach (CPA) to the microphone.
2. the actual helicopter slant range (SR) at the time of PNLTM.
3. the reference CPA identified CPAR and,
4. the reference slant range (SRR).

Appendix B

Corrected Noise Level Data are presented.

The key to the table numbering system is as follows:

Table No. B. 1-1. 1

Appendix No. _____ ↑

Helicopter No. & Operation _____ ↑

Microphone location

Table No.	B.	1-1,	1-2,	1-3	Type	Date
		2-1,	2-2,	2-3	Sikorsky UH-60A	June 22, 1980
		3-1,	3-2,	3-3	Sikorsky S-76	June 23, 1980
		4-1,	4-2,	4-3	Augusta A-109	June 24, 1980
		5-1,	5-2,	5-3	Sikorsky S-76	June 25, 1980
		6-1,	6-2,	6-3	Sikorsky UH-60A	June 25, 1980
		7-1,	7-2,	7-3	Bell 206L	June 26, 1980
					Sikorsky UH-60A	June 26, 1980

Microphone Location	1	centerline-center
	1H	centerline-center 10 meter
	1G	centerline-center (flush)
	2	centerline 150m west
	3	centerline 150m east
	4	sideline 164m north
	5	sideline 150m south
	5G	sideline 150m south (flush)
	6	sideline 284m north

DOT/TSC
12/12/81

JUNE 22, 1980

TABLE NO. B.1-2.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/12/81

CORRECTION DATA

SITE: 1				CENTERLINE - CENTER				JUNE 22, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	NEL	PWLTH	dBWH	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
27	93.6	89.9	95.2	81.9	-0.04	-0.04	-0.01	-0.01	7.0	6.7	160.1	159.5	151.8	151.2
30	92.9	89.3	95.4	82.5	0.40	0.35	-0.13	-0.12	7.2	6.6	176.9	169.4	157.8	151.2
33	93.9	90.4	94.8	81.9	-0.21	-0.21	0.05	0.05	7.7	7.4	257.5	261.6	148.8	151.2
36	92.4	88.7	94.8	81.4	0.21	0.18	-0.07	-0.07	7.1	6.9	214.8	209.8	154.7	151.2
Avg.	93.2	89.6	95.1	81.9	0.09	0.07	-0.04	-0.04	7.3	6.9	202.3	200.1	153.3	151.2
Std Dev	0.8	0.9	0.4	0.5	0.33	0.30	0.09	0.09	0.4	0.4	53.0	56.9	4.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS														
26	94.6	91.1	97.2	84.1	0.12	0.10	-0.06	-0.06	7.1	7.1	285.3	279.8	154.1	151.2
29	94.8	91.4	97.3	83.8	-0.11	-0.13	0.02	0.02	7.0	7.2	211.0	212.4	150.2	151.2
32	94.1	90.8	97.4	84.6	-0.52	-0.49	0.12	0.11	6.3	6.1	154.1	160.9	144.8	151.2
35	94.3	90.7	96.4	83.1	-0.04	-0.08	0.01	0.01	7.3	7.1	166.6	186.9	150.9	151.2
Avg.	94.4	91.0	97.1	83.9	-0.14	-0.15	0.02	0.02	6.9	6.9	209.3	210.0	150.0	151.2
Std Dev	0.4	0.4	0.6	0.8	0.33	0.30	0.09	0.09	0.5	0.7	68.4	62.6	4.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
25	96.8	93.3	98.9	85.3	1.19	1.11	-0.40	-0.41	7.6	7.8	344.6	305.1	170.7	151.2
28	96.4	92.5	100.0	86.7	0.71	0.66	-0.19	-0.20	6.1	6.1	180.6	167.7	162.8	151.2
31	97.4	94.1	100.9	87.5	-0.24	-0.24	0.05	0.05	6.4	6.6	240.5	245.0	148.4	151.2
34	97.2	93.8	100.4	86.8	0.23	0.21	-0.08	-0.08	6.9	7.0	258.5	251.6	155.4	151.2
Avg.	97.0	93.4	100.0	86.6	0.47	0.43	-0.15	-0.16	6.7	6.9	256.0	242.4	159.3	151.2
Std Dev	0.5	0.9	1.0	1.1	0.75	0.71	0.23	0.24	0.8	0.9	83.0	69.3	11.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS														
49	95.2	91.1	98.1	83.7	-0.53	-0.51	0.15	0.15	6.6	6.9	205.8	216.6	143.6	151.2
50	96.4	92.4	98.9	85.6	-1.67	-1.64	0.46	0.46	6.5	6.5	179.0	210.3	128.6	151.2
51	96.2	92.2	98.6	84.7	0.56	0.52	-0.18	-0.18	7.1	7.1	275.6	260.1	160.2	151.2
Avg.	95.9	91.9	98.5	84.7	-0.55	-0.54	0.14	0.14	6.7	6.8	220.1	229.0	144.1	151.2
Std Dev	0.9	1.0	0.6	1.4	1.58	1.53	0.45	0.45	0.5	0.4	70.5	38.3	22.3	0.0

TABLE NO. B.1-3.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/12/81

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)	CONSTANTS	TRACKING DATA (METERS)					
	EPNL	NEL	PWLTH	dBAM			K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS												
43	-	94.5	102.4	88.9	-0.09	-0.11	-	6.6	136.2	137.4	89.4	90.2
44	98.6	95.1	102.9	88.9	-0.31	-0.32	6.5	6.9	116.4	120.2	87.4	90.2
Avg.	98.6	94.8	102.4	88.9	-0.20	-0.21	6.5	6.7	126.3	128.8	88.4	90.2
Std Dv	-	0.4	0.4	0.0	0.16	0.15	-	0.2	14.0	12.2	1.4	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS												
41	93.0	90.1	95.2	81.9	0.13	0.10	6.8	7.2	285.6	280.9	215.7	212.1
42	93.3	90.0	94.5	82.0	0.10	0.08	7.1	6.6	281.1	277.3	215.0	212.1
Avg.	93.2	90.0	94.8	81.9	0.12	0.09	7.0	6.9	283.3	279.1	215.3	212.1
Std Dv	0.2	0.0	0.5	0.1	0.02	0.01	0.3	0.4	3.2	2.5	0.4	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS												
1	91.2	88.3	92.9	80.2	-0.31	-0.28	7.1	7.0	455.2	454.5	304.1	303.6
2	91.7	88.3	92.3	78.7	0.26	0.25	7.5	7.6	409.0	577.6	320.1	303.6
3	91.1	88.1	91.2	77.8	-0.25	-0.29	7.7	7.8	378.8	377.9	304.2	303.6
4	91.6	88.9	91.4	79.5	-0.22	-0.20	7.7	7.3	573.4	567.6	306.7	303.6
5	91.0	88.3	91.8	79.2	-0.19	-0.24	7.1	7.4	395.6	391.3	304.9	303.6
6	-	-	-	-	-	-	-	-	NO TRACKING DATA			
40	91.4	88.6	91.9	79.2	-0.07	-0.06	7.8	7.6	443.3	442.7	304.0	303.6
47	90.8	87.9	92.0	79.0	1.05	0.95	6.7	6.7	627.4	568.6	334.9	303.6
48	90.2	87.4	91.0	78.7	-0.12	-0.14	7.2	7.1	364.1	365.7	302.2	303.6
Avg.	91.1	88.2	91.8	79.0	0.02	-0.00	7.4	7.3	483.3	470.7	310.4	303.6
Std Dv	0.5	0.5	0.7	0.7	0.49	0.46	0.4	0.4	114.5	97.2	12.3	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS												
37	-	84.1	88.9	75.9	-0.12	-0.11	-	7.7	1010.5	1008.6	456.8	456.0
38	88.2	85.8	88.3	76.0	0.10	0.09	7.4	7.3	811.9	797.1	464.4	456.0
45	-	-	-	-	-	-	-	-	NO TRACKING DATA			
46	-	-	-	-	-	-	-	-	NO TRACKING DATA			
Avg.	88.2	85.9	88.6	75.9	-0.01	-0.01	7.4	7.5	911.2	902.8	460.6	456.0
Std Dv	-	0.2	0.4	0.1	0.16	0.14	-	0.2	99.3	105.8	5.4	0.0

JUNE 22, 1980

SITE: 1 CENTERLINE - CENTER

TABLE NO. B.1-2.18

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/12/81

CORRECTION DATA

SITE: 16				CENTERLINE - CENTER (FLUSH)				JUNE 22, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	NEL	PMLTN	GBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
27	97.3	93.4	99.4	85.7	-0.03	-0.04	-0.01	-0.01	6.6	6.7	151.5	160.9	153.0	152.4
30	96.5	92.8	99.4	86.1	0.38	0.35	-0.13	-0.12	7.0	6.7	145.8	158.9	159.0	152.4
33	97.7	94.2	99.4	86.1	-0.22	-0.21	0.05	0.05	7.4	7.2	159.7	162.3	150.0	152.4
36	96.6	92.7	98.8	85.5	0.19	0.17	-0.07	-0.07	7.2	6.9	163.2	159.5	156.0	152.4
Avg.	97.0	93.3	99.2	85.8	0.08	0.07	-0.04	-0.04	7.0	6.9	162.5	160.4	154.5	152.4
Std Dev	0.7	0.8	0.4	0.4	0.32	0.36	0.09	0.09	0.4	0.3	3.2	1.9	4.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS														
26	98.1	94.5	101.1	87.6	0.13	0.10	-0.06	-0.06	7.0	7.3	249.5	244.8	153.4	152.4
29	98.8	95.3	101.4	88.1	-0.12	-0.13	0.02	0.02	7.0	7.2	211.9	213.2	151.4	152.4
32	98.0	94.5	101.1	87.5	-0.50	-0.49	0.12	0.12	6.6	6.7	197.2	203.8	146.0	152.4
35	98.5	94.9	100.6	87.2	-0.05	-0.08	0.01	0.01	7.3	7.4	211.3	211.7	152.1	152.4
Avg.	98.3	94.8	101.1	87.6	-0.13	-0.15	0.02	0.02	7.0	7.2	217.5	218.9	151.2	152.4
Std Dev	0.5	0.5	0.4	0.5	0.32	0.30	0.09	0.09	0.3	0.4	27.5	21.5	4.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
25	100.5	96.8	102.7	89.3	1.17	1.11	-0.39	-0.40	7.5	7.6	211.7	187.6	172.0	152.4
28	99.8	95.7	103.7	89.7	0.69	0.65	-0.19	-0.21	5.9	6.5	208.4	193.7	164.0	152.4
31	100.9	97.6	104.0	91.0	-0.25	-0.25	0.06	0.05	7.0	6.7	241.2	245.8	149.6	152.4
34	100.5	96.8	104.1	90.0	0.23	0.20	-0.08	-0.08	6.5	6.7	259.2	252.3	156.6	152.4
Avg.	100.4	96.7	103.6	90.0	0.46	0.43	-0.15	-0.16	6.7	6.9	230.1	219.9	160.5	152.4
Std Dev	0.6	1.0	0.8	0.9	0.75	0.72	0.23	0.24	0.8	0.6	29.8	41.5	11.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS														
49	100.3	96.4	103.2	90.2	-0.60	-0.61	0.15	0.14	6.9	6.2	308.9	325.1	144.8	152.4
50	100.1	96.3	103.1	89.9	-1.74	-1.65	0.44	0.42	6.3	6.1	180.4	211.8	129.8	152.4
51	100.2	96.2	102.7	89.6	0.54	0.51	-0.18	-0.16	7.2	6.6	205.6	194.1	161.4	152.4
Avg.	100.2	96.3	103.0	89.9	-0.60	-0.58	0.14	0.13	6.8	6.3	231.6	243.7	145.4	152.4
Std Dev	0.1	0.1	0.4	0.5	1.61	1.53	0.44	0.41	0.6	0.3	96.3	100.5	22.3	0.0

12/14/81
301/78C

JUNE 22, 1980

CENTERLINE - CENTER (10-METER)

HI :3LIS

TRACKING DATA (METERS)	(REFERENCE)	(ACTUAL)
100	100	100
200	200	200
300	300	300
400	400	400
500	500	500
600	600	600
700	700	700
800	800	800
900	900	900
1000	1000	1000

[illegible]

TABLE NO. B.1-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

BOT/TSC
12/14/81

CORRECTION DATA

SITE: 1H				CENTERLINE - CENTER (10-METER)						JUNE 22, 1980							
CORRECTED						CORRECTIONS (dB)						TRACKING DATA (METERS)					
						CONSTANTS						(ACTUAL)					
						K(P) K(A)						SR CPA SBR CPAR					
EV	EPWL	MEL	PM	TH	GDAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SBR	CPAR		
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS																	
27	93.3	89.3	95.2	81.4	-0.02	-0.03	-0.01	-0.01	-0.01	6.7	6.6	151.4	150.8	142.9	142.3		
30	92.9	88.9	95.5	81.6	0.43	0.38	-0.14	-0.14	-0.14	7.0	7.1	148.5	161.0	149.0	142.3		
33	93.8	90.0	95.4	81.7	-0.21	-0.23	0.05	0.05	0.05	7.3	7.1	225.0	228.8	139.9	142.3		
36	92.8	88.8	95.1	82.0	0.23	0.20	-0.08	-0.07	-0.07	6.9	6.5	153.1	149.3	146.0	142.3		
Avg.	93.2	89.2	95.3	81.7	0.11	0.08	-0.04	-0.04	-0.04	7.0	6.8	174.5	172.5	144.5	142.3		
Std Dv	0.6	0.7	0.2	0.3	0.34	0.33	0.10	0.10	0.10	0.3	0.4	42.3	46.5	4.8	0.0		
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS																	
26	94.4	90.4	97.3	83.2	0.15	0.13	-0.06	-0.07	-0.07	6.9	7.3	241.7	236.8	145.3	142.3		
29	94.6	90.9	97.7	83.9	-0.12	-0.13	0.02	0.02	0.02	6.6	7.0	233.5	235.1	141.4	142.3		
32	94.4	90.8	97.6	84.0	-0.54	-0.50	0.13	0.13	0.13	6.5	6.5	163.1	170.5	136.1	142.3		
35	94.3	90.6	96.7	83.1	-0.08	-0.08	0.01	0.01	0.01	6.9	6.9	178.7	179.0	142.0	142.3		
Avg.	94.4	90.7	97.3	83.6	-0.15	-0.14	0.02	0.02	0.02	6.7	6.9	204.3	205.4	141.2	142.3		
Std Dv	0.2	0.3	0.5	0.6	0.35	0.32	0.10	0.10	0.10	0.2	0.4	48.0	43.5	4.6	0.0		
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS																	
25	96.7	92.8	99.1	85.6	1.28	1.18	-0.42	-0.41	-0.41	7.5	7.3	167.1	146.9	161.9	142.3		
28	96.4	92.3	99.3	85.6	0.77	0.70	-0.23	-0.21	-0.21	6.6	6.3	199.7	184.7	153.9	142.3		
31	96.9	93.4	100.0	86.4	-0.24	-0.24	0.06	0.06	0.06	6.8	6.9	234.0	238.5	139.6	142.3		
34	96.9	93.1	100.1	86.2	0.25	0.23	-0.08	-0.08	-0.08	6.6	6.7	252.3	245.0	146.5	142.3		
Avg.	96.7	92.9	99.6	85.9	0.51	0.47	-0.17	-0.16	-0.16	6.9	6.8	213.3	203.8	150.5	142.3		
Std Dv	0.3	0.6	0.6	0.5	0.80	0.75	0.25	0.24	0.24	0.5	0.5	46.2	57.1	11.8	0.0		
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS																	
49	97.3	93.2	100.3	86.7	-0.58	-0.58	0.16	0.15	0.15	6.8	6.3	198.6	209.8	134.8	142.3		
50	97.2	93.2	99.7	86.3	-1.89	-1.74	0.49	0.47	0.47	6.6	6.3	171.6	203.8	119.9	142.3		
51	97.0	92.6	99.8	86.4	0.59	0.55	-0.19	-0.17	-0.17	7.0	6.4	230.5	216.8	151.4	142.3		
Avg.	97.2	93.0	99.9	86.5	-0.63	-0.59	0.15	0.15	0.15	6.8	6.3	200.3	210.1	135.3	142.3		
Std Dv	0.3	0.5	0.4	0.3	1.75	1.62	0.48	0.45	0.45	0.3	0.1	41.7	9.2	22.3	0.0		

TABLE NO. B-1-3.1H
SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

SITE: 1H		CENTERLINE - CENTER (10-METER)					JUNE 22, 1980				
CORRECTED					CORRECTIONS (dB)		CONSTANTS		TRACKING DATA (METERS)		
EV	EPWL	MEL	PWLTH	dBWH	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CFAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS											
41	97.4	95.8	104.0	90.0	-0.34 -0.34 0.05 0.10	6.1	6.8	150.2	155.4	78.7	81.4
Avg.	97.4	95.8	104.0	90.0	-0.34 -0.34 0.09 0.10	6.1	6.8	150.2	155.4	78.7	81.4
Std Dv	-	-	-	-	-	-	-	-	-	-	-
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS											
41	93.5	90.1	95.7	81.9	0.14 0.11 -0.05 -0.05	6.8	7.2	278.0	273.3	206.8	203.3
42	94.2	90.5	95.7	82.4	0.12 0.09 -0.04 -0.04	7.1	6.7	210.6	207.6	206.2	203.3
Avg.	93.8	90.3	95.7	82.2	0.13 0.10 -0.04 -0.04	7.0	7.0	244.3	240.4	206.5	203.3
Std Dv	0.5	0.3	0.0	0.4	0.01 0.01 0.01 0.01	0.2	0.4	47.7	46.4	0.4	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS											
1	88.0	85.5	88.9	76.6	-0.39 -0.42 -0.01 -0.01	7.7	7.7	530.6	529.6	295.3	294.7
2	87.9	84.9	88.3	74.8	0.25 0.22 -0.18 -0.19	7.7	8.0	419.3	396.9	311.4	294.7
3	88.0	85.2	88.6	76.0	-0.43 -0.38 -0.01 -0.01	7.3	7.4	370.9	370.1	295.4	294.7
4	88.5	86.2	89.6	77.7	-0.18 -0.18 -0.03 -0.03	7.3	6.9	298.0	294.8	298.0	294.7
5	88.2	85.9	89.9	77.4	-0.40 -0.33 -0.04 -0.04	7.1	7.2	387.8	383.4	298.1	294.7
6	-	88.4	92.3	78.6	0.14 0.13 - -	-	7.5	359.1	547.6	301.0	294.7
39	91.3	88.1	91.9	78.3	-0.05 -0.06 0.00 0.00	7.7	7.8	419.6	419.0	295.2	294.7
47	92.4	89.0	93.4	79.6	1.03 0.98 -0.30 -0.31	6.9	7.0	443.0	400.3	326.2	294.7
48	91.7	88.3	92.4	79.1	-0.12 -0.14 0.01 0.01	7.2	7.1	384.6	386.4	293.4	294.7
Avg.	89.5	86.8	90.6	77.6	-0.01 -0.02 -0.07 -0.07	7.4	7.4	423.7	414.2	301.5	294.7
Std Dv	2.1	1.7	2.0	1.7	0.50 0.46 0.12 0.12	0.3	0.4	85.8	84.1	11.4	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS											
37	-	85.6	88.5	75.5	-0.07 -0.08 - -	-	8.0	593.2	592.1	448.0	447.1
38	88.6	85.6	89.4	75.8	0.09 -0.06 -0.06 -0.06	7.0	7.3	805.5	790.5	455.6	447.1
45	-	-	-	-	-	-	-	NO TRACKING DATA			
46	-	-	-	-	-	-	-	NO TRACKING DATA			
Avg.	88.6	85.6	88.9	75.7	0.01 0.00 -0.06 -0.03	7.0	7.7	699.4	691.3	451.8	447.1
Std Dv	-	0.1	0.6	0.2	0.11 0.12 - 0.04	-	0.5	150.1	140.3	5.4	0.0

DOT/TSC
12/14/81

[illegible]

TABLE NO. B.1-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

SITE: 2				JUNE 22, 1980										
				CENTERLINE - 150 M. WEST										
				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)				
CORRECTED				$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$				K(P)	K(A)	SR	CPA	SRR	CPAR	
EV	EPNL	MEL	PNLTH	dBAN	AIRSPEED 115 KTS									
500 FT. FLYOVER - TARGET INDICATED														
27	93.9	90.0	95.3	81.5	-0.03	-0.04	-0.01	-0.01	7.5	7.5	241.8	241.1	151.6	151.2
30	93.6	89.9	97.2	82.4	0.44	0.39	-0.13	-0.14	6.2	6.8	211.5	201.9	158.4	151.2
33	95.1	91.4	98.3	84.1	-0.18	0.04	0.04	0.04	6.5	6.8	249.2	252.7	149.1	151.2
36	92.9	89.1	95.2	82.2	0.04	0.03	-0.02	-0.02	7.2	6.6	159.0	157.7	152.4	151.2
Avg.	93.9	90.1	96.5	82.6	0.07	0.05	-0.03	-0.03	6.8	6.9	215.4	213.4	152.9	151.2
Std Dev	1.1	1.2	1.9	1.4	0.32	0.30	0.09	0.09	0.7	0.5	50.2	52.7	4.8	0.0
500 FT. FLYOVER - TARGET INDICATED														
26	94.0	90.4	97.4	83.9	0.32	0.27	-0.10	-0.10	6.7	6.7	194.0	187.4	156.6	151.2
29	94.7	91.3	97.0	84.0	0.00	0.00	-0.02	-0.02	7.4	7.0	161.7	160.6	152.2	151.2
32	94.8	91.3	98.6	84.7	-0.46	-0.48	0.11	0.12	6.4	6.9	234.4	243.8	145.3	151.2
35	94.7	91.0	96.5	82.8	-0.05	-0.08	0.01	0.01	7.5	7.6	195.0	195.5	150.8	151.2
Avg.	94.6	91.0	97.4	83.9	-0.05	-0.07	0.00	0.00	7.0	7.1	196.3	196.8	151.2	151.2
Std Dev	0.5	0.5	1.1	1.0	0.39	0.38	0.11	0.11	0.7	0.5	36.4	42.5	5.7	0.0
500 FT. FLYOVER - TARGET INDICATED														
25	96.9	93.4	99.5	86.0	1.00	0.93	-0.32	-0.33	7.1	7.4	302.1	272.5	167.6	151.2
28	95.9	92.5	100.1	85.4	0.85	0.78	-0.23	-0.25	6.1	6.7	227.4	208.5	164.9	151.2
31	97.7	94.4	100.7	87.1	-0.30	-0.29	0.07	0.07	6.8	7.1	314.7	322.0	147.8	151.2
34	96.7	93.1	98.6	84.9	0.29	0.26	-0.10	-0.10	7.3	7.5	255.2	247.2	156.1	151.2
Avg.	96.8	93.4	99.7	86.1	0.46	0.42	-0.14	-0.15	6.8	7.2	274.8	262.5	159.1	151.2
Std Dev	0.9	1.0	1.1	1.1	0.72	0.68	0.21	0.22	0.6	0.4	49.9	58.3	11.0	0.0
500 FT. FLYOVER - TARGET INDICATED														
49	96.9	92.9	100.3	86.3	-0.67	-0.67	0.18	0.19	6.4	6.6	143.6	153.3	141.6	151.2
50	96.1	92.5	100.4	87.2	-1.74	-1.64	0.41	0.39	5.7	5.4	137.9	142.4	128.3	151.2
51	96.8	92.6	100.2	86.1	0.43	0.31	-0.10	-0.10	6.4	6.5	518.8	500.4	156.7	151.2
Avg.	96.6	92.7	100.3	86.5	-0.66	-0.67	0.16	0.16	6.2	6.2	266.8	272.1	142.2	151.2
Std Dev	0.6	0.3	0.1	0.9	1.53	1.38	0.36	0.35	0.6	0.9	308.7	279.8	20.1	0.0

TABLE NO. B.1-3.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

B01/TSC
12/14/81

CORRECTION DATA

SITE: 2			CENTERLINE - 150 M. WEST			JUNE 22, 1980								
CORRECTED			CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)						
EV	EPNL	NEL	PMLTH	DBAM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS														
43	99.4	95.7	103.8	90.0	-0.03	-0.03	0.00	0.00	6.2	6.3	92.0	92.2	90.1	90.2
44	99.9	96.3	104.5	91.1	-0.21	-0.22	0.06	0.06	6.3	6.1	90.2	92.1	88.3	90.2
Avg.	99.7	96.0	104.2	90.6	-0.12	-0.12	0.03	0.03	6.3	6.2	91.1	92.1	89.2	90.2
Std Dev	0.4	0.4	0.5	0.8	0.13	0.13	0.04	0.04	0.1	0.2	1.3	0.0	1.3	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS														
41	94.5	91.2	96.2	83.1	0.12	0.10	-0.05	-0.05	7.3	7.5	354.2	348.5	215.6	212.1
42	94.7	91.4	97.6	84.2	0.15	0.11	-0.05	-0.05	6.7	6.8	218.9	215.3	215.7	212.1
Avg.	94.6	91.3	96.9	83.6	0.13	0.11	-0.05	-0.05	7.0	7.1	286.5	281.9	215.6	212.1
Std Dev	0.2	0.1	1.0	0.6	0.02	0.01	0.00	0.00	0.4	0.5	95.7	94.2	0.1	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS														
1	92.5	89.7	94.3	81.5	-0.20	-0.18	-0.04	-0.04	7.0	7.1	479.0	473.0	307.4	303.6
2	92.7	89.5	93.2	77.6	0.20	0.19	-0.16	-0.16	7.7	7.8	574.6	548.0	318.3	303.6
3	92.2	89.1	92.5	79.5	-0.15	-0.19	-0.04	-0.04	7.4	7.5	403.1	398.2	307.4	303.6
4	93.4	90.6	94.6	82.1	-0.10	-0.09	-0.04	-0.04	6.9	6.6	307.7	303.6	307.6	303.6
5	92.5	89.8	93.5	81.1	-0.19	-0.19	-0.05	-0.05	7.0	7.1	490.4	481.9	308.9	303.6
6	92.2	89.4	91.9	79.0	0.22	0.18	-0.09	-0.09	7.9	8.0	314.3	306.8	311.2	303.6
39	92.4	89.4	93.1	80.3	-0.02	-0.04	-0.01	-0.01	7.4	7.5	310.3	309.2	304.6	303.6
40	92.3	89.1	92.4	79.2	0.89	0.81	-0.29	-0.29	7.8	7.9	330.9	303.8	330.7	303.6
47	92.3	88.1	92.4	79.4	0.00	-0.02	-	-0.02	-	7.9	322.1	320.1	305.4	303.6
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Avg.	92.5	89.4	93.1	80.2	0.07	0.05	-0.09	-0.08	7.4	7.5	392.5	382.7	311.3	303.6
Std Dev	0.4	0.7	1.0	1.2	0.37	0.34	0.10	0.10	0.4	0.5	106.3	102.2	8.9	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS														
37	90.2	87.3	89.2	76.6	-0.10	-0.10	-0.01	-0.01	7.5	7.8	645.5	644.0	457.0	456.0
38	-	86.0	89.8	77.4	0.05	0.05	-	-0.05	-	7.8	927.2	912.3	463.4	456.0
45	-	-	-	-	-	-	-	-	-	-	NO TRACKING DATA			
46	-	-	-	-	-	-	-	-	-	-	NO TRACKING DATA			
Avg.	90.2	86.7	89.5	77.0	-0.03	-0.03	-0.01	-0.03	7.5	7.8	796.4	788.2	460.2	456.0
Std Dev	-	0.9	0.5	0.6	0.11	0.11	-	0.03	-	0.0	185.1	175.5	4.6	0.0

TABLE NO. B.1-1.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

SITE: 3			CENTERLINE - 150 M. EAST				JUNE 22, 1980							
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)				
EV	EPNL	NEL	PMLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
16	97.1	92.7	98.8	84.2	0.33	0.32	-0.14	-0.14	7.4	7.5	165.6	158.6	139.8	133.9
17	98.1	93.3	101.0	85.6	-0.12	-0.11	0.02	0.02	6.5	6.9	148.7	149.6	133.1	133.9
18	97.8	93.0	100.2	85.5	0.02	0.03	-0.03	-0.02	7.0	6.7	140.7	139.6	135.0	133.9
19	98.1	93.4	100.9	85.9	0.29	0.28	-0.11	-0.11	6.7	6.8	141.3	136.3	138.9	133.9
20	98.4	93.6	101.6	85.9	0.34	0.33	-0.11	-0.12	6.3	6.9	150.7	144.6	139.6	133.9
21	98.1	93.4	101.1	85.9	0.18	0.18	-0.07	-0.07	6.4	6.8	139.5	136.1	137.2	133.9
22	98.3	93.7	101.4	86.5	0.42	0.41	-0.14	-0.14	6.6	6.6	151.0	143.7	140.7	133.9
23	98.1	93.9	101.0	86.4	0.14	0.13	-0.05	-0.05	6.6	6.5	141.1	138.7	136.2	133.9
24	97.3	92.8	101.1	86.3	0.06	0.05	-0.02	-0.02	5.9	6.1	172.7	171.2	135.0	133.9
Avg.	97.9	93.3	100.8	85.8	0.18	0.18	-0.07	-0.07	6.6	6.8	150.1	146.5	137.3	133.9
Std Dv	0.5	0.4	0.9	0.7	0.19	0.18	0.06	0.06	0.4	0.4	12.6	12.5	2.8	0.0
TAKEDOFF														
8	92.4	87.6	95.5	81.1	0.32	0.32	-0.15	-0.14	7.0	6.9	119.3	113.6	107.7	102.6
9	92.9	88.2	94.8	80.8	1.75	1.66	-0.57	-0.52	6.9	6.4	124.8	103.4	123.8	102.6
10	92.3	87.6	94.4	80.3	2.05	1.94	-0.64	-0.59	6.8	6.3	127.6	102.7	127.4	102.6
11	92.6	88.0	94.6	79.4	2.92	2.81	-0.91	-0.96	6.8	7.2	145.4	107.1	139.2	102.6
12	92.4	87.7	94.8	80.2	1.92	1.82	-0.58	-0.57	6.6	6.5	126.3	103.2	125.6	102.6
13											NO TRACKING DATA			
14	92.9	88.2	95.0	79.9	2.38	2.30	-0.78	-0.78	7.1	7.2	135.7	105.6	131.8	102.6
15	92.8	88.1	95.0	80.2	2.30	2.22	-0.74	-0.74	7.0	7.0	132.5	104.0	130.7	102.6
Avg.	92.6	87.9	94.9	80.3	1.95	1.87	-0.62	-0.61	6.9	6.8	130.2	105.7	126.6	102.6
Std Dv	0.3	0.3	0.4	0.6	0.89	0.85	0.26	0.28	0.2	0.4	9.4	4.2	10.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 100 KTS														
52	91.2	87.5	93.9	80.2	-0.63	-0.59	0.14	0.14	6.8	6.8	213.6	224.3	143.9	151.2
Avg.	91.2	87.5	93.9	80.2	-0.63	-0.59	0.14	0.14	6.8	6.8	213.6	224.3	143.9	151.2
Std Dv														

TABLE NO. B.1-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

		SITE: 3		CENTERLINE - 150 M. EAST		JUNE 22, 1980		TRACKING DATA (METERS)			
								(ACTUAL)		(REFERENCE)	
		CORRECTED		CORRECTIONS (dB)		CONSTANTS		SR		CPA	
EV	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS											
27	91.7	88.0	93.6	80.6	0.02	0.01	-0.02	164.5	163.2	152.4	151.2
30	92.1	88.3	95.0	81.0	0.38	0.33	-0.12	220.8	211.9	157.5	151.2
33	92.6	88.8	94.2	81.0	-0.51	-0.47	0.13	148.7	135.2	144.8	151.2
36	91.9	88.1	93.9	80.8	0.19	0.15	-0.06	241.9	236.8	154.4	151.2
Avg.	92.0	88.3	94.2	80.8	0.02	0.00	-0.02	194.0	191.8	152.3	151.2
Std Dev	0.4	0.4	0.7	0.3	0.47	0.42	0.13	54.5	47.9	6.6	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS											
26	93.2	90.0	96.6	83.3	0.02	-0.01	-0.02	211.1	209.6	152.2	151.2
29	93.8	90.4	95.6	82.5	-0.19	-0.21	0.05	224.8	228.0	149.1	151.2
32	93.3	90.0	96.6	83.5	-0.38	-0.40	0.09	221.1	228.5	146.3	151.2
35	93.2	89.6	95.0	82.1	-0.04	-0.04	0.00	162.8	162.6	151.4	151.2
Avg.	93.4	90.0	95.9	82.8	-0.15	-0.16	0.03	205.0	207.2	149.7	151.2
Std Dev	0.3	0.4	0.9	0.8	0.22	0.22	0.06	35.2	37.9	3.2	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS											
25	95.5	91.9	97.3	84.3	1.21	1.13	-0.41	178.7	157.7	171.2	151.2
28	95.2	91.5	97.8	84.2	0.53	0.48	-0.18	216.1	204.3	159.9	151.2
31	95.9	92.7	98.1	85.1	-0.15	-0.16	0.03	280.5	283.1	149.8	151.2
34	96.2	92.9	98.7	85.9	-0.12	-0.13	0.02	307.2	309.0	150.3	151.2
Avg.	95.7	92.3	98.0	84.9	0.37	0.33	-0.13	245.6	238.5	157.8	151.2
Std Dev	0.5	0.8	0.7	1.0	0.79	0.75	0.24	72.0	85.6	12.3	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS											
49	97.0	93.0	98.5	85.0	-0.36	-0.37	0.11	196.6	203.2	146.2	151.2
50	96.1	92.4	98.6	85.8	-2.02	-1.85	0.48	198.5	236.9	126.6	151.2
51	96.5	92.2	98.4	84.7	0.74	0.69	-0.23	267.5	248.2	162.9	151.2
Avg.	96.6	92.5	98.5	85.2	-0.55	-0.51	0.14	220.9	229.5	145.3	151.2
Std Dev	0.7	0.6	0.2	0.8	1.96	1.80	0.50	57.1	33.1	25.7	0.0

TABLE NO. B.1-3.3

SINKOVSKY UN-60A BLACKHAWK HELICOPTER

NOT/TSC
12/14/81

CORRECTION DATA

SITE: 3			CENTERLINE - 150 N. EAST				JUNE 22, 1980					
CORRECTED					CORRECTIONS (dB)		CONSTANTS		TRACKING DATA (ACTUAL)		TRACKING DATA (REFERENCE)	
EV	EPNL	NEL	PWLTH	GBMH	$\Delta 1(P) \Delta 1(A) \Delta 2(P) \Delta 2(A)$	K(P)	K(A)	SR	CPA	SR	CPAR	
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS												
43	98.8	95.0	102.7	89.2	0.10 0.05 -0.04 -0.04	6.4	6.6	491.1	484.9	91.4	90.2	
44	99.0	95.3	103.0	89.6	-0.43 -0.42 0.11 0.12	6.5	6.8	256.5	266.9	86.7	90.2	
Avg.	98.9	95.1	102.8	89.4	-0.16 -0.19 0.03 0.04	6.4	6.7	373.8	375.9	89.0	90.2	
Std Dev	0.1	0.2	0.2	0.3	0.37 0.33 0.11 0.11	0.0	0.1	165.9	154.1	3.3	0.0	
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS												
41	93.3	90.2	95.1	82.4	-0.08 -0.02 -0.06 -0.06	6.8	6.5	217.0	212.8	216.3	212.1	
42	94.2	90.7	95.5	82.1	0.01 0.00 -0.02 -0.02	6.9	7.6	450.7	447.6	213.6	212.1	
Avg.	93.8	90.4	95.3	82.3	-0.03 -0.01 -0.04 -0.04	6.9	7.1	333.8	330.2	215.0	212.1	
Std Dev	0.6	0.4	0.2	0.2	0.06 0.01 0.03 0.03	0.1	0.8	165.3	166.0	1.9	0.0	
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS												
1	90.5	87.7	91.8	79.0	-0.43 -0.41 0.03 0.03	7.2	7.3	469.5	473.6	301.0	303.6	
2	90.9	87.7	90.5	77.1	0.32 0.30 -0.19 -0.20	7.9	8.0	487.7	461.0	321.1	303.6	
3	91.1	88.1	91.3	77.9	-0.54 -0.45 0.04 0.04	7.5	7.9	614.0	620.6	300.3	303.6	
4	91.5	88.7	91.9	79.7	-0.23 -0.23 -0.01 -0.01	7.2	7.2	304.7	306.2	304.1	303.6	
5	91.1	88.4	91.5	79.5	-0.31 -0.31 -0.02 -0.02	7.5	7.4	477.5	474.7	305.4	303.6	
6								NO TRACKING DATA				
39	91.9	89.1	91.0	78.4	0.11 0.10 -0.06 -0.06	7.8	7.7	642.8	630.7	309.4	303.6	
40	91.8	88.8	92.1	79.7	-0.13 -0.12 0.01 0.01	7.2	6.9	473.9	476.1	302.2	303.6	
47	91.9	89.0	93.2	80.4	1.19 1.11 -0.35 -0.34	7.1	6.9	588.3	524.8	340.3	303.6	
48	91.1	88.2	91.7	79.0	-0.41 -0.39 0.08 0.08	7.5	7.4	591.0	605.9	296.1	303.6	
Avg.	91.3	88.4	91.7	79.0	-0.05 -0.04 -0.05 -0.05	7.4	7.4	516.8	508.2	308.9	303.6	
Std Dev	0.5	0.6	0.8	1.1	0.58 0.53 0.14 0.14	0.3	0.4	111.2	109.5	14.7	0.0	
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS												
37	-	85.6	87.2	75.1	-0.09 -0.09 -	-	7.5	924.1	919.3	458.4	456.0	
38	-	85.6	87.4	74.8	0.06 0.06 -	-	8.1	1064.7	1046.7	463.8	456.0	
45								NO TRACKING DATA				
46								NO TRACKING DATA				
Avg.	-	85.6	87.3	75.0	-0.01 -0.01 -	-	7.8	994.4	983.0	461.1	456.0	
Std Dev	-	0.0	0.2	0.2	0.11 0.11 -	-	0.4	70.3	63.7	3.8	0.0	

TABLE NO. B.1-1.4

SINKOVSKY 181-604 BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

SITE: 4				SIDELINE - 164 M. NORTH				JUNE 22, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)				
EV	EPWL	MEL	PWLTR	GBWH	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SR	CPAR
APPROACH														
17	98.4	94.7	100.6	86.9	-0.43	-0.38	0.10	0.10	7.1	7.2	218.8	225.9	184.9	191.0
18	99.0	94.9	100.9	86.8	-0.19	-0.16	0.03	0.03	7.1	7.1	196.9	198.8	189.2	191.0
19	99.6	95.6	101.0	86.8	-0.01	0.01	-0.03	-0.03	7.6	7.7	203.5	201.7	192.7	191.0
20	99.0	95.4	100.5	87.0	-0.42	-0.38	0.11	0.11	7.4	7.4	196.2	203.0	184.6	191.0
21	98.7	94.8	100.8	86.9	-0.27	-0.24	0.06	0.06	7.1	7.2	201.6	205.5	187.4	191.0
22	98.7	95.0	100.3	86.9	-0.56	-0.51	0.16	0.15	7.4	7.2	192.0	201.7	181.8	191.0
23	98.0	94.4	100.1	87.4	0.23	0.24	-0.11	-0.10	7.4	6.6	217.3	209.8	197.8	191.0
24	96.8	93.4	97.9	84.0	-0.73	-0.69	0.22	0.22	7.2	7.3	183.4	196.8	177.9	191.0
Avg.	98.5	94.8	100.3	86.6	-0.30	-0.26	0.07	0.07	7.3	7.2	201.2	205.4	187.0	191.0
Std Dev	0.9	0.7	1.1	1.1	0.33	0.32	0.11	0.11	0.2	0.3	13.0	9.9	6.7	0.0
TAKEOFF														
8	-	85.6	89.4	76.0	0.09	0.16	-	-0.12	-	7.5	215.5	207.7	211.9	204.2
9	90.0	84.2	89.5	76.1	0.72	0.43	-0.28	-0.27	7.7	7.3	229.2	210.6	222.2	204.2
10	89.6	85.7	89.5	75.8	0.95	0.88	-0.36	-0.36	7.7	7.6	236.2	211.9	227.6	204.2
11	89.5	85.7	89.6	76.3	1.48	1.34	-0.32	-0.30	7.7	7.4	238.7	204.2	238.7	204.2
12	90.4	86.4	90.4	77.0	0.87	0.81	-0.34	-0.32	7.7	7.3	237.2	214.4	225.9	204.2
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	90.1	86.3	89.9	76.5	1.29	1.20	-0.48	-0.46	7.8	7.6	235.0	204.2	234.9	204.2
15	90.1	86.2	90.3	77.0	1.27	1.15	-0.45	-0.43	7.7	7.3	241.8	211.2	233.7	204.2
NO TRACKING DATA														
Avg.	89.9	86.0	89.8	76.4	0.93	0.88	-0.40	-0.35	7.7	7.4	233.4	209.2	227.9	204.2
Std Dev	0.4	0.4	0.4	0.5	0.51	0.44	0.10	0.14	0.1	0.2	9.6	4.3	9.9	0.0

NO TRACKING DATA

TABLE NO. B.1-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980															
SITE: 4 SIDELINE - 164 N. NORTH															
CORRECTED					CORRECTIONS (dB)				TRACKING DATA (METERS) (ACTUAL) (REFERENCE)						
EV	EPNL	MEL	PWLTH	CDAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	CONSTANTS	K(P)	K(A)	SR	CPA	SRR	CPMR
500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS															
27	92.8	89.9	94.6	82.0	-0.19	-0.20	0.04	0.04	6.5	6.3	228.1	231.2	210.1	212.9	
30	92.2	89.5	93.8	81.6	-0.27	-0.28	0.04	0.04	7.5	7.1	432.8	438.8	210.0	212.9	
33	93.4	90.6	95.5	82.6	0.10	0.08	-0.04	-0.04	6.7	6.9	216.4	213.2	216.1	212.9	
36	93.8	91.0	95.4	83.2	0.57	0.52	-0.18	-0.17	7.0	6.6	225.8	213.0	225.8	212.9	
Avg.	93.0	90.2	94.8	82.4	0.05	0.03	-0.03	-0.03	6.9	6.7	275.8	274.0	215.5	212.9	
Std Dev	0.8	0.8	0.9	0.9	0.47	0.44	0.13	0.12	0.6	0.4	128.4	134.9	9.1	0.0	
500 FT. FLYBY - TARGET INDICATED AIRSPEED 132 KTS															
26	93.4	90.6	95.7	83.6	-0.30	-0.30	0.07	0.07	6.6	6.6	208.1	212.9	208.1	212.9	
29	93.6	92.7	97.9	85.4	-0.04	-0.05	-0.01	-0.01	6.6	6.6	214.3	213.8	213.4	212.9	
32	93.3	90.5	96.0	82.9	-1.32	-1.26	0.34	0.36	6.3	6.6	189.1	214.2	187.9	212.9	
35	94.6	91.7	96.9	84.4	0.06	0.05	-0.03	-0.03	6.7	6.7	216.0	213.7	215.2	212.9	
Avg.	94.2	91.4	96.6	84.1	-0.40	-0.39	0.09	0.10	6.5	6.6	206.9	213.7	206.1	212.9	
Std Dev	1.3	1.3	1.2	1.3	0.77	0.73	0.21	0.22	0.2	0.1	15.1	0.7	15.3	0.0	
500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS															
25	97.2	93.8	98.5	85.9	0.15	0.13	-0.07	-0.06	7.4	6.9	224.4	219.7	217.5	212.9	
28	97.2	93.6	98.5	85.9	-0.01	-0.02	-0.01	-0.01	7.2	6.3	218.8	217.8	213.9	212.9	
31	96.2	92.9	97.2	84.4	-1.03	-0.99	0.30	0.29	7.0	6.8	205.1	225.9	193.3	212.9	
34	97.0	93.6	99.0	86.5	0.49	0.44	-0.15	-0.15	6.7	6.6	228.1	216.7	224.2	212.9	
Avg.	96.9	93.5	98.3	85.7	-0.10	-0.11	0.02	0.02	7.1	6.7	219.1	220.1	212.2	212.9	
Std Dev	0.6	0.5	1.0	1.1	0.80	0.76	0.24	0.23	0.3	0.3	12.4	5.0	16.3	0.0	

12/14/81
DOT/TSC

CORRECTION DATA

JUNE 22, 1980

SIDELINE - 164 N. NORTH

SITE: 4

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	NEL	PNLTH	GBAN	$\wedge(1(P) \wedge(1(A) \wedge(2(P) \wedge(2(A)$			K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS													
43	97.4	93.6	99.4	86.9	-0.07	-0.06	0.01	7.3	6.2	190.5	191.3	174.3	175.0
44	99.2	95.5	102.9	90.2	0.50	0.46	-0.14	6.3	6.0	190.7	181.1	184.3	175.0
Ave.	98.3	94.6	101.2	88.5	0.21	0.19	-0.06	6.8	6.1	190.6	186.2	179.3	175.0
Std Dev	1.3	1.4	2.5	2.4	0.40	0.38	0.11	0.7	0.1	0.1	7.3	7.1	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS													
41	97.9	95.3	99.9	87.9	0.53	0.50	-0.18	7.3	6.7	396.4	374.7	274.8	259.8
42	95.4	92.3	96.6	84.9	0.30	0.27	-0.11	7.3	6.6	269.2	260.4	268.6	259.8
Ave.	96.7	93.8	98.2	86.4	0.41	0.38	-0.14	7.3	6.6	332.8	317.6	271.7	259.8
Std Dev	1.8	2.1	2.4	2.1	0.16	0.16	0.05	0.0	0.1	90.0	80.9	4.4	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS													
1	92.4	89.4	92.3	80.2	-0.56	-0.57	0.06	7.6	7.5	517.3	526.8	332.5	338.6
2	94.7	91.8	94.6	82.6	-0.48	-0.44	0.08	7.9	7.4	331.8	339.5	330.9	338.6
3	93.0	89.9	92.5	80.9	-0.42	-0.32	-0.02	7.7	7.2	344.5	342.8	340.3	338.6
4	95.0	92.5	94.5	83.1	-0.83	-0.78	0.19	8.1	7.4	321.0	338.6	321.0	338.6
5	92.5	89.5	91.7	79.3	-1.11	-1.14	0.18	7.7	7.7	641.7	677.6	320.7	338.6
6	95.5	92.9	95.5	84.5	0.05	0.05	-0.04	7.6	6.7	342.8	339.0	342.4	338.6
40	93.9	90.1	93.3	81.0	-0.03	-0.05	-0.03	7.3	7.2	942.1	934.2	341.5	338.6
Ave.	93.9	90.9	93.5	81.7	-0.48	-0.46	0.06	7.7	7.3	491.6	499.8	332.7	338.6
Std Dev	1.4	1.6	1.5	2.0	0.45	0.45	0.11	0.3	0.3	254.8	254.3	10.1	0.0
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS													
37	90.2	87.4	88.6	76.7	-0.11	-0.12	-0.01	7.9	7.6	782.4	780.6	481.1	488.0
38	90.5	87.4	88.6	76.7	-0.11	-0.12	-0.01	7.9	7.6	782.4	780.6	481.1	488.0
45	90.5	88.8	89.9	78.5	-0.12	-0.11	-0.01	7.9	7.4	801.4	800.7	480.5	480.0
46	90.5	88.8	89.9	78.5	-0.12	-0.11	-0.01	7.9	7.4	801.4	800.7	480.5	480.0
Ave.	90.5	88.8	89.9	78.5	-0.12	-0.11	-0.01	7.9	7.4	801.4	800.7	480.5	480.0
Std Dev	2.0	2.0	1.8	2.6	0.01	0.01	0.01	0.3	0.3	26.8	28.4	1.0	0.0

SIKORSKY UH-60A BLACKHAWK HELICOPTER

12/14/81
DOT/TSC

CORRECTION DATA

[illegible]

TABLE NO. B.1-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980														
SITE: 5														
SIDELINE - 150 M. SOUTH														
CORRECTIONS (dB)														
CONSTANTS														
TRACKING DATA (METERS)														
(ACTUAL) (REFERENCE)														
SR CPA SRR CPAR														
EV	EPNL	NEL	PWLTN	CDAM	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR			
500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
27	93.2	90.5	93.3	81.5	0.12	0.08	-0.06	-0.05	7.6	7.3	219.6	216.0	216.5	212.9
28	93.4	91.0	94.2	84.3	0.52	0.48	-0.16	-0.15	6.8	6.4	232.7	220.1	225.1	212.9
30	93.4	91.0	94.2	84.3	0.52	0.48	-0.16	-0.15	6.8	6.4	232.7	220.1	225.1	212.9
33	93.3	90.7	93.6	81.6	-0.38	-0.39	0.11	0.10	7.6	7.3	215.5	222.5	206.3	212.9
34	91.4	89.1	93.0	81.1	-0.45	-0.44	0.12	0.11	6.7	6.4	212.6	221.2	204.7	212.9
Avg.	92.8	90.3	94.0	82.1	-0.05	-0.07	0.00	0.00	7.2	6.9	220.1	220.0	213.1	212.9
Std Dev	1.2	1.0	1.8	1.8	0.56	0.53	0.17	0.15	0.6	0.7	10.9	3.4	11.7	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 132 KTS														
26	95.4	93.2	97.9	86.2	0.35	0.32	-0.14	-0.13	7.7	7.3	226.7	217.6	221.8	212.9
29	94.3	91.9	95.7	83.8	-0.15	-0.17	0.03	0.03	6.9	6.8	227.5	229.5	211.1	212.9
32	96.0	93.5	98.6	87.0	0.62	0.57	-0.20	-0.19	7.2	6.7	237.4	222.6	227.1	212.9
35	93.7	91.4	94.9	83.4	-0.18	-0.19	0.04	0.04	7.6	6.9	215.6	218.4	210.3	212.9
Avg.	94.9	92.5	96.8	85.1	0.16	0.13	-0.07	-0.06	7.4	6.9	226.8	222.0	217.6	212.9
Std Dev	1.2	1.3	2.1	2.2	0.48	0.46	0.15	0.14	0.4	0.3	10.9	6.7	10.1	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
25	96.9	94.1	98.0	86.1	1.03	0.96	-0.33	-0.30	7.2	6.6	237.3	213.6	236.6	212.9
28	97.6	94.6	100.2	87.6	0.66	0.62	-0.22	-0.21	7.2	6.9	247.3	230.4	228.5	212.9
31	96.6	93.9	99.0	86.9	0.63	0.57	-0.19	-0.20	6.9	7.2	258.1	242.0	227.1	212.9
34	96.6	94.0	98.5	85.6	-0.33	-0.34	0.08	0.09	7.1	7.4	300.2	308.3	207.4	212.9
Avg.	96.9	94.1	98.9	86.6	0.50	0.45	-0.16	-0.15	7.1	7.0	260.7	248.6	224.9	212.9
Std Dev	0.6	0.4	1.2	1.1	0.71	0.68	0.21	0.21	6.2	0.4	33.9	50.8	15.2	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 165 KTS														
49	96.7	93.5	98.4	84.6	-0.08	-0.10	0.01	0.01	7.0	6.7	213.5	214.5	212.0	212.9
50	97.5	94.2	100.4	88.1	-0.13	-0.14	0.02	0.02	6.9	6.4	230.5	232.5	211.2	212.9
51	96.2	93.1	97.6	85.7	0.46	0.42	-0.15	-0.15	7.0	7.2	223.8	213.3	223.4	212.9
Avg.	96.8	93.6	98.8	86.8	0.08	0.06	-0.04	-0.04	7.0	6.8	222.6	220.1	215.5	212.9
Std Dev	0.9	0.8	2.0	1.7	0.46	0.44	0.13	0.13	0.1	0.6	12.1	15.2	9.7	0.0

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOI/TSC
12/14/81

CORRECTION DATA

SITE: 5			SIDELINE - 150 N. SOUTH					JUNE 22, 1980						
CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (ACTUAL)		TRACKING DATA (REFERENCE)	
EV	EPNL	NEL	PMLTH	QDMM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS														
43	97.9	94.8	102.5	89.2	-0.03	-0.04	0.00	0.00	5.7	6.5	175.0	175.0	175.0	175.0
44	96.3	92.9	99.3	86.1	-0.81	-0.80	0.23	0.22	6.9	6.7	220.0	237.5	162.1	175.0
Avg.														
Std Dev	97.1	93.8	100.9	87.6	-0.42	-0.42	0.12	0.11	6.3	6.6	197.5	206.2	168.6	175.0
	1.1	1.4	2.3	2.2	0.55	0.54	0.16	0.16	0.9	0.2	31.8	44.2	9.1	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS														
41	93.8	91.2	95.6	83.4	-0.08	-0.10	0.01	0.01	6.9	7.0	267.8	268.5	259.1	259.8
42	96.5	93.6	98.0	86.1	-0.72	-0.21	0.05	0.05	7.5	6.7	256.0	260.2	255.6	259.8
Avg.														
Std Dev	95.1	92.4	96.8	84.8	-0.15	-0.15	0.03	0.03	7.2	6.8	261.9	264.4	257.4	259.8
	1.9	1.7	1.7	1.9	0.10	0.08	0.03	0.03	0.4	0.2	8.3	5.8	2.5	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS														
1	94.6	91.6	96.0	83.6	0.12	0.12	-0.11	-0.11	7.2	7.1	357.1	344.6	350.8	338.6
2	91.2	88.4	91.9	78.6	0.78	0.71	-0.33	-0.34	7.4	7.7	536.4	484.8	374.6	338.6
3	94.4	91.8	94.7	83.3	-0.29	-0.28	0.01	0.01	7.6	6.9	343.0	343.5	339.0	338.6
4	91.6	89.0	91.7	79.8	0.33	0.26	-0.20	-0.21	7.4	7.6	539.1	504.1	340.6	338.6
5	94.4	91.5	95.2	82.7	0.42	0.39	-0.22	-0.21	7.6	7.3	363.0	340.2	361.2	338.6
6									NO TRACKING DATA					
39	92.5	90.1	92.3	80.4	0.16	0.13	-0.07	-0.07	7.6	7.5	457.4	447.7	345.9	338.6
40	95.2	92.8	95.9	83.7	-0.16	-0.16	0.02	0.02	7.6	7.5	567.2	570.9	334.4	338.6
47	92.1	89.3	92.6	80.6	1.43	1.27	-0.38	-0.39	7.0	7.2	443.3	391.6	363.3	338.6
48	94.5	91.9	95.0	83.0	0.22	0.20	-0.10	-0.09	7.8	7.2	739.7	719.1	348.3	338.6
Avg.														
Std Dev	93.4	90.7	93.9	81.7	0.33	0.25	-0.15	-0.15	7.5	7.3	482.9	460.9	355.5	338.6
	1.7	1.6	1.9	2.0	0.55	0.50	0.15	0.15	0.3	0.3	136.8	135.3	17.0	0.0
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS														
37	89.2	87.2	88.3	76.3	-0.08	-0.10	-0.01	-0.01	7.4	7.8	654.5	652.0	461.8	480.0
38	91.7	89.1	91.9	79.2	0.23	0.20	-0.10	-0.10	7.4	7.5	1108.9	1075.5	494.9	480.0
45									NO TRACKING DATA					
46									NO TRACKING DATA					
Avg.														
Std Dev	90.5	88.2	90.1	77.7	0.07	0.05	-0.06	-0.06	7.4	7.6	881.7	863.8	488.4	480.0
	1.8	1.4	2.5	2.1	0.22	0.21	0.06	0.06	0.0	0.2	227.2	211.8	9.2	0.0

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/T9C
12/14/81

CORRECTION DATA

[illegible]

TABLE NO. B.1-2.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

SITE: 58				SIDELINE - 150 M. SOUTH (FLUSH)				JUNE 22, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	MEL	PMLTM	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
27	97.3	94.7	98.4	86.4	0.11	0.08	-0.06	-0.05	7.7	7.3	220.5	216.9	217.4	213.8
30	97.7	95.1	100.8	88.6	0.51	0.47	-0.16	-0.16	6.7	6.6	233.7	221.1	226.0	213.8
33	97.3	95.0	98.5	86.9	-0.38	-0.38	0.10	0.10	7.3	7.0	210.1	216.8	207.1	213.8
36	95.3	93.1	97.1	85.8	-0.45	-0.44	0.13	0.12	7.7	6.8	205.6	213.8	205.6	213.8
Avg.	96.9	94.5	98.7	86.9	-0.05	-0.07	0.00	0.00	7.3	6.9	217.5	217.2	214.0	213.8
Std Dv	1.3	1.2	1.9	1.5	0.55	0.52	0.17	0.16	0.6	0.4	15.3	3.7	11.7	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 132 KTS														
26	99.2	96.7	102.1	90.1	0.34	0.32	-0.13	-0.12	7.4	6.8	227.5	218.5	222.6	213.8
29	98.5	96.4	100.1	88.7	-0.19	-0.17	0.03	0.03	7.4	6.9	217.6	219.4	212.0	213.8
32	99.6	97.1	103.3	91.1	0.60	0.56	-0.19	-0.17	6.7	6.2	230.1	215.8	227.9	213.8
35	98.2	95.9	100.1	88.4	-0.22	-0.19	0.04	0.04	7.2	6.8	216.6	219.3	211.1	213.8
Avg.	98.9	96.5	101.4	89.6	0.13	0.13	-0.06	-0.05	7.2	6.7	222.9	218.3	218.4	213.8
Std Dv	0.8	0.6	1.9	1.5	0.49	0.45	0.14	0.13	0.4	0.4	8.4	2.0	10.0	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
25	100.3	97.8	102.8	90.9	1.07	0.97	-0.32	-0.32	7.0	6.9	295.7	266.2	237.5	213.8
28	101.3	98.4	104.2	92.1	0.65	0.62	-0.22	-0.19	7.1	6.4	271.1	252.7	229.4	213.8
31	100.9	98.5	103.7	91.9	0.62	0.56	-0.19	-0.20	6.8	7.2	258.8	242.8	227.9	213.8
34	100.0	97.1	102.6	89.6	-0.33	-0.36	0.08	0.08	7.0	7.1	300.8	308.8	208.3	213.8
Avg.	100.6	98.0	103.3	91.1	0.50	0.45	-0.16	-0.16	7.0	6.9	281.6	267.6	225.8	213.8
Std Dv	0.7	0.8	0.9	1.4	0.72	0.70	0.21	0.21	9.1	0.4	24.4	35.0	15.2	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 165 KTS														
49	100.8	98.1	103.3	91.7	-0.13	-0.11	0.01	0.01	6.9	6.6	223.7	224.7	212.8	213.8
50	101.5	98.4	104.6	92.5	-0.13	-0.16	0.03	0.02	6.9	6.1	254.1	256.4	211.9	213.8
51	100.4	97.8	102.6	90.7	0.46	0.42	-0.15	-0.15	7.2	7.3	292.7	279.1	224.3	213.8
Avg.	100.9	98.1	103.5	91.6	0.07	0.05	-0.04	-0.04	7.0	6.7	256.8	253.4	216.3	213.8
Std Dv	0.8	0.4	1.4	1.3	0.48	0.45	0.14	0.13	0.3	0.8	49.0	38.6	9.8	0.0

TABLE NO. B-1-3.58

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

SITE: 56				SIDELINE - 150 M. SOUTH (FLUSH)				JUNE 22, 1980						
CORRECTED				CORRECTIONS (dB)				TRACKING DATA (METERS) (ACTUAL) (REFERENCE)						
EV	EPNL	NEL	PWLTH	dBAN	$\wedge(1(P) \wedge(1(A) \wedge(2(P) \wedge(2(A)$ <th>CONSTANTS</th> <th>SR</th> <th>CPA</th> <th>SRR</th> <th>CPAR</th>	CONSTANTS	SR	CPA	SRR	CPAR				
300 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS														
43	94.9	91.9	99.0	86.7	-0.03	-0.04	0.00	0.00	6.1	6.4	178.9	178.9	175.6	175.6
44	94.9	91.6	98.3	85.6	-0.81	-0.82	0.22	0.20	6.7	6.0	220.5	237.9	162.8	175.6
Avg.	94.9	91.7	98.7	86.2	-0.42	-0.43	0.11	0.10	6.4	6.2	199.7	208.4	169.2	175.6
Std Dv	0.0	0.2	0.5	0.8	0.55	0.55	0.16	0.14	6.4	0.2	29.4	41.7	9.1	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS														
41	98.1	96.0	99.9	88.5	-0.11	-0.10	0.01	0.01	7.2	6.9	282.2	282.9	260.1	260.8
42	100.0	97.5	102.3	90.9	-0.22	-0.22	0.05	0.04	6.9	6.0	257.1	261.2	256.6	260.8
Avg.	99.1	96.8	101.1	89.7	-0.17	-0.16	0.03	0.02	7.1	6.4	269.6	272.1	258.4	260.8
Std Dv	1.4	1.1	1.7	1.7	0.08	0.08	0.03	0.02	0.2	0.7	17.8	15.3	2.5	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS														
1	97.0	94.5	98.5	87.3	0.14	0.12	-0.11	-0.10	7.2	6.6	358.1	345.7	351.9	339.7
2	94.4	92.1	95.0	83.0	0.75	0.74	-0.33	-0.33	7.5	7.6	425.8	385.0	375.7	339.7
3	97.3	95.1	98.4	87.3	-0.27	-0.25	0.01	0.00	7.2	6.6	344.1	344.6	339.1	339.7
4	97.6	96.2	97.9	86.8	0.22	0.17	-0.21	-0.22	7.9	7.9	574.6	539.6	361.7	339.7
5	99.2	97.0	101.2	89.7	0.40	0.35	-0.19	-0.18	6.9	6.5	370.7	347.6	362.3	339.7
6	96.7	94.7	97.4	85.4	0.16	0.13	-0.07	-0.07	7.3	7.5	431.4	422.3	347.0	339.7
40	98.8	96.4	98.7	87.4	-0.14	-0.17	0.02	0.02	8.0	7.4	423.9	424.6	337.5	339.7
47	96.0	93.9	96.6	84.9	1.35	1.23	-0.41	-0.40	7.6	7.5	444.6	392.9	384.4	339.7
48	97.9	95.4	99.2	88.0	0.22	0.20	-0.09	-0.08	7.2	6.5	349.4	339.7	349.4	339.7
Avg.	97.2	95.0	98.1	86.6	0.31	0.28	-0.15	-0.15	7.4	7.1	413.6	393.8	356.5	339.7
Std Dv	1.6	1.6	1.8	2.1	0.52	0.49	0.16	0.15	0.4	0.6	76.8	68.7	17.0	0.0
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS														
37	93.3	91.7	92.6	81.1	-0.09	-0.10	-0.01	-0.01	7.6	7.7	655.9	653.4	483.0	481.2
38	95.3	92.9	94.6	83.0	0.22	0.20	-0.10	-0.10	7.9	7.5	1056.1	1024.5	496.0	481.2
45									NO TRACKING DATA					
46									NO TRACKING DATA					
Avg.	94.3	92.3	93.6	82.0	0.06	0.05	-0.06	-0.06	7.8	7.6	856.0	838.9	489.5	481.2
Std Dv	1.4	0.8	1.5	1.3	0.22	0.21	0.06	0.06	0.2	0.1	200.1	185.6	9.2	0.0

TABLE NO. B.1-2.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

CORRECTION DATA

DOT/TSC
12/14/81

JUNE 22, 1980

SITE: 6 SIDELINE - 284 M. NORTH

EV	CORRECTED			CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS)			
	EPML	NEL	PMLTH	CDAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPMR
500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS												
27	89.9	87.2	89.7	77.4	-0.24	-0.23	0.04	0.03	6.8	6.5	320.9	324.8
30	90.8	88.6	91.6	78.8	-0.32	-0.31	0.06	0.06	6.9	6.9	315.2	321.7
33	90.9	88.2	90.6	78.7	0.08	0.07	-0.05	-0.05	7.6	7.3	326.5	321.6
34	91.8	89.3	93.5	81.0	0.42	0.38	-0.13	-0.13	6.6	6.5	339.3	324.5
Avg.	90.9	88.3	91.4	79.0	-0.02	-0.02	0.11	0.10	7.0	6.8	325.5	323.1
Std Dev	1.0	1.1	2.0	1.8	0.41	0.38	0.11	0.10	0.5	0.5	12.6	2.1
500 FT. FLYBY - TARGET INDICATED AIRSPEED 132 KTS												
26	92.5	89.9	93.3	81.4	-0.37	-0.35	0.07	0.07	6.9	7.3	320.2	327.7
29	93.3	90.3	93.2	80.1	-0.08	-0.09	-0.01	-0.01	7.3	7.8	437.4	436.1
32	91.5	88.7	92.2	79.8	-1.06	-1.01	0.24	0.26	6.2	6.6	293.4	321.6
35	-	89.6	92.3	79.8	0.02	0.01	-	-0.03	-	7.5	324.6	321.6
Avg.	92.4	89.6	92.7	80.3	-0.37	-0.36	0.10	0.07	6.8	7.3	343.9	351.8
Std Dev	1.3	0.8	0.7	0.9	0.60	0.56	0.18	0.16	0.8	0.6	78.2	69.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS												
25	95.4	91.7	94.6	81.1	-0.18	-0.20	0.03	0.03	8.0	7.8	375.8	379.3
28	94.6	91.7	97.2	84.2	-0.24	-0.23	0.03	0.03	6.4	6.4	339.5	343.7
31	93.6	90.7	93.9	80.4	-0.87	-0.85	0.23	0.24	7.1	7.4	392.5	423.1
34	95.1	92.7	97.5	84.6	0.33	0.30	-0.11	-0.10	6.4	6.3	340.9	338.2
Avg.	94.7	91.7	95.9	82.6	-0.24	-0.24	0.05	0.05	7.0	7.0	342.2	348.6
Std Dev	1.0	1.0	2.2	2.6	0.60	0.58	0.17	0.17	1.0	0.9	32.2	51.6
500 FT. FLYBY - TARGET INDICATED AIRSPEED 165 KTS												
47	-	90.4	94.6	81.9	-0.35	-0.34	-	0.08	-	6.7	389.3	400.7
50	93.9	90.9	94.8	83.4	-1.03	-0.98	0.28	0.26	7.4	6.6	318.1	347.8
51	94.2	89.9	94.7	81.0	-0.08	-0.10	0.01	0.01	7.1	6.7	382.9	383.9
Avg.	94.3	90.4	94.7	82.1	-0.49	-0.48	0.14	0.12	7.2	6.7	343.5	377.5
Std Dev	0.2	0.7	0.1	1.7	0.69	0.64	0.19	0.18	0.2	0.1	55.8	38.2

312.5 321.5
294.1 321.5
320.7 321.5
309.1 321.5
19.2 0.0

TABLE NO. B.1-3.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

BOT/TSC
12/14/81

CORRECTION DATA

SITE: 6		SIDELINE - 284 M. NORTH				JUNE 22, 1980							
CORRECTED					CORRECTIONS (dB)		CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)				
EV	EPML	NEL	PMLTH	GBAN	$\wedge 1(P) / \wedge 1(A)$	$\wedge 2(P) / \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
300 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS													
43	94.2	90.3	94.7	82.7	-0.08	0.01	0.01	7.7	6.3	315.2	315.9	297.1	297.8
44	95.2	92.7	97.7	84.9	0.34	0.31	-0.11	6.7	6.7	311.4	300.1	308.9	297.8
Avg.	94.7	91.5	96.2	83.8	0.13	0.12	-0.05	7.2	6.5	313.3	308.0	303.0	297.8
Std Dv	0.7	1.7	2.1	1.6	0.30	0.28	0.08	0.7	0.3	2.7	11.1	8.3	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS													
41	94.1	90.7	95.2	82.1	-0.05	-0.05	-0.06	7.0	6.8	385.4	378.0	361.3	354.3
42	93.1	90.6	94.3	82.8	0.26	0.23	-0.09	7.2	6.7	366.9	356.1	365.0	354.3
Avg.	93.6	90.7	94.8	82.5	0.10	0.09	-0.07	7.1	6.7	376.2	367.1	363.1	354.3
Std Dv	0.7	0.1	0.7	0.5	0.22	0.20	0.02	0.1	0.1	13.1	15.5	2.6	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS													
1	90.1	87.3	89.8	77.5	-0.81	-0.78	0.15	7.5	7.6	398.2	416.8	397.0	415.6
2	90.9	87.8	90.0	76.7	-1.13	-1.06	0.20	7.8	7.9	783.4	830.2	392.1	415.6
3	91.1	88.3	90.2	78.3	-0.29	-0.27	-0.02	7.9	7.5	432.6	430.3	417.7	415.6
4	91.9	89.3	90.1	78.4	-1.14	-1.07	0.25	8.4	7.8	410.2	441.6	386.0	415.6
5	90.3	87.8	89.6	77.9	-1.15	-1.11	0.25	7.6	7.3	385.4	415.6	385.4	415.6
6	93.2	90.5	92.3	80.4	-0.10	-0.10	-0.02	7.7	7.4	1031.2	1025.6	417.9	415.6
46	90.9	88.3	91.0	78.9	0.03	0.01	-0.03	7.2	7.1	422.9	418.8	419.7	415.6
47	91.4	88.5	91.8	78.6	-0.18	-0.18	0.03	6.9	6.9	547.9	553.0	411.7	415.6
48	89.5	86.7	89.2	77.0	-0.58	-0.56	0.15	7.3	7.6	397.2	415.7	397.1	415.6
Avg.	91.0	88.3	90.5	78.2	-0.59	-0.57	0.11	7.6	7.5	534.3	549.7	402.7	415.6
Std Dv	1.2	1.2	1.1	1.2	0.51	0.48	0.12	0.5	0.3	151.1	158.3	15.0	0.0
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS													
37	92.2	87.9	90.9	78.8	-0.14	-0.13	0.01	7.7	7.6	858.8	860.4	534.0	537.1
38	-	86.4	87.6	76.0	-0.24	-0.25	-	-	7.2	719.2	725.4	532.5	537.1
45	-	-	-	-	-	-	-	-	-	NO TRACKING DATA			
46	-	-	-	-	-	-	-	-	-	NO TRACKING DATA			
Avg.	92.2	88.1	89.3	77.4	-0.19	-0.19	0.01	7.7	7.4	789.0	792.9	534.3	537.1
Std Dv	-	2.5	2.4	2.0	0.07	0.08	-	-	0.2	98.7	95.4	2.5	0.0

TABLE NO. B.2-1.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	MEL	PNLTH	QDASH	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
JUNE 23, 1980														
SITE: 1														
CENTERLINE - CENTER														
APPROACH														
34	94.2	91.1	96.2	81.9	0.72	0.69	-0.24	-0.23	7.0	6.8	132.9	122.8	128.0	118.2
36	95.2	91.7	98.5	85.2	-0.15	-0.14	0.03	0.03	6.4	6.3	122.3	123.8	116.8	118.2
40	96.4	93.2	99.2	86.5	0.13	0.13	-0.05	-0.04	6.1	5.7	152.4	149.7	120.4	118.2
42	96.0	92.8	98.3	85.8	0.35	0.34	-0.12	-0.11	6.6	6.1	141.7	136.1	123.1	118.2
44	94.6	91.6	97.1	84.6	0.19	0.19	-0.06	-0.06	6.2	5.9	121.2	118.4	121.0	118.2
54	95.2	91.9	99.8	86.8	0.03	0.02	-0.01	-0.01	5.0	5.1	142.1	141.5	118.7	118.2
56	96.1	93.1	100.0	86.9	0.06	0.06	-0.02	-0.02	5.9	6.1	143.3	142.3	119.1	118.2
AVG.	95.4	92.2	98.5	85.4	0.19	0.18	-0.07	-0.06	6.2	6.0	136.6	133.5	121.0	118.2
Std Dev	0.9	0.9	1.5	1.9	0.31	0.29	0.10	0.09	0.7	0.6	12.7	13.0	4.0	0.0
TAKEDOFF														
33	90.8	86.9	92.5	78.9	3.87	3.58	-1.26	-1.21	7.7	7.4	176.2	120.9	157.6	108.1
35	90.1	86.7	92.9	79.6	3.24	3.00	-1.01	-0.99	7.3	7.2	149.8	109.1	148.4	108.1
37	90.0	86.4	92.8	78.8	3.06	2.84	-0.94	-0.97	7.2	7.4	148.6	110.0	146.0	108.1
39	-	86.8	92.8	79.6	2.90	2.69	-	-0.90	-	7.3	143.7	108.1	143.7	108.1
41	89.6	86.4	92.4	79.0	2.27	2.10	-0.67	-0.69	6.9	7.1	135.7	108.5	135.3	108.1
43	89.8	86.5	92.5	79.0	2.65	2.45	-0.83	-0.83	7.4	7.4	142.7	110.2	140.0	108.1
53	89.3	86.1	91.8	78.7	3.68	3.41	-1.13	-1.10	7.4	7.2	153.8	108.2	153.5	108.1
55	88.1	84.9	89.8	77.2	3.54	3.26	-1.13	-1.06	7.7	7.2	159.5	113.7	151.7	108.1
AVG.	89.7	86.4	92.2	78.8	3.15	2.92	-1.00	-0.97	7.4	7.3	151.3	111.1	147.0	108.1
Std Dev	0.9	0.7	1.1	0.8	0.58	0.54	0.22	0.18	0.3	0.1	13.4	4.7	7.9	0.0

TABLE NO. B.2-2.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA

JUNE 23, 1980

SITE: 1 CENTERLINE - CENTER

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	NEL	PWL/TM	dBAM	$\wedge(1(P) \wedge(1(A) \wedge(2(P) \wedge(2(A)$	$\wedge(1(P) \wedge(1(A) \wedge(2(P) \wedge(2(A)$	$\wedge(1(P) \wedge(1(A) \wedge(2(P) \wedge(2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS													
21	87.9	85.4	89.5	76.5	0.46	0.46	-0.20	7.0	7.1	179.5	148.2	141.3	151.2
22	89.8	87.4	94.1	82.0	0.10	0.11	-0.07	6.2	5.7	231.2	245.0	155.0	151.2
23	88.1	85.3	89.5	76.5	0.38	0.36	-0.17	7.5	7.4	223.1	211.8	159.3	151.2
24	89.9	87.0	93.2	81.0	0.08	0.10	-0.07	6.5	6.0	292.9	286.1	154.8	151.2
Avg.	88.9	86.3	91.6	79.0	0.25	0.26	-0.13	6.8	6.6	236.7	227.8	157.6	151.2
Std Dev	1.4	1.3	3.0	3.6	0.24	0.22	0.08	0.7	1.1	58.4	61.2	4.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS													
29	86.7	84.1	88.9	75.9	-0.29	-0.24	0.02	6.8	7.0	169.7	170.9	150.2	151.2
30	85.4	82.8	88.8	75.7	0.29	0.30	-0.14	6.9	7.1	186.9	178.3	158.5	151.2
31	86.0	83.5	88.5	75.7	0.22	0.24	-0.12	6.7	6.9	177.9	170.8	157.4	151.2
32	84.8	82.0	88.2	75.0	0.74	0.71	-0.24	6.4	6.5	186.0	170.3	165.1	151.2
Avg.	85.7	83.1	88.6	75.6	0.24	0.25	-0.12	6.7	6.9	180.2	172.6	157.8	151.2
Std Dev	1.0	1.1	0.4	0.5	0.52	0.48	0.13	0.3	0.3	9.8	4.7	7.5	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS													
49	87.1	84.5	91.4	78.8	0.16	0.16	-0.06	6.2	6.2	184.3	180.5	154.3	151.2
50	86.9	84.4	90.0	77.0	-0.80	-0.73	0.19	6.4	6.7	165.2	176.8	141.3	151.2
51	86.5	83.7	89.5	76.8	0.60	0.54	-0.17	6.6	6.5	253.6	239.3	160.2	151.2
52	87.0	84.4	90.2	77.7	1.09	0.98	-0.30	6.9	6.8	232.1	210.0	167.2	151.2
Avg.	86.9	84.2	90.3	77.6	0.26	0.24	-0.08	6.5	6.6	208.8	201.6	155.7	151.2
Std Dev	0.3	0.4	1.0	1.1	0.98	0.89	0.25	0.3	0.3	50.3	35.7	13.5	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
17	89.6	86.8	92.2	79.9	0.19	0.21	-0.12	6.9	6.6	174.0	167.1	157.4	151.2
18	87.6	84.9	93.3	80.2	-0.61	-0.53	0.08	5.5	5.7	178.0	183.7	146.5	151.2
19	89.0	86.6	91.6	79.8	0.62	0.61	-0.24	6.9	6.7	200.5	185.0	163.9	151.2
20	87.3	84.6	92.1	79.6	0.54	0.54	-0.20	6.3	6.2	201.0	186.7	162.7	151.2
Avg.	88.4	85.7	92.3	79.9	0.19	0.21	-0.12	6.4	6.3	188.4	180.6	157.6	151.2
Std Dev	1.3	1.4	0.9	0.3	0.69	0.64	0.17	0.8	0.6	17.6	11.2	9.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS													
25	89.7	87.1	93.4	80.5	0.56	0.55	-0.21	6.6	7.0	179.4	166.6	162.7	151.2
26	90.5	87.4	94.9	81.2	0.85	0.81	-0.28	6.6	7.2	177.0	160.2	167.0	151.2
27	91.9	88.7	96.5	83.4	-0.48	-0.44	0.07	6.1	6.0	151.5	155.4	147.3	151.2
28	91.1	88.2	95.7	82.7	-0.09	-0.06	-0.04	6.7	6.8	173.5	171.4	153.0	151.2
Avg.	90.8	87.8	95.1	81.9	0.21	0.21	-0.11	6.5	6.7	170.3	163.4	157.5	151.2
Std Dev	1.2	0.9	1.6	1.6	0.74	0.70	0.20	0.3	0.6	15.7	8.6	11.0	0.0

TABLE NO. B.2-3.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA										JUNE 23, 1980			
CENTERLINE - CENTER										TRACKING DATA (METERS)			
CORRECTED										CORRECTIONS (dB)			
CONSTANTS										TRACKING DATA (REFERENCE)			
EV	EPNL	NEL	PWLIM	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SKR	CPAR	
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
9	91.1	88.4	95.6	82.8	-0.28	0.03	6.3	6.4	118.0	119.4	89.2	90.2	
10	90.4	87.6	96.4	83.6	0.14	-0.08	5.8	5.4	149.1	144.5	93.1	90.2	
15	91.2	88.2	96.7	83.7	-0.07	-0.02	5.8	5.6	111.9	111.0	90.9	90.2	
16	91.3	88.3	97.8	84.7	0.06	-0.06	5.5	5.2	141.2	137.8	92.4	90.2	
AVG.	91.0	88.1	96.6	83.7	-0.04	-0.03	5.8	5.7	130.0	128.2	91.4	90.2	
Std Dv	0.5	0.4	1.1	1.0	0.22	0.06	0.4	0.6	22.0	19.1	2.1	0.0	
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
7	86.9	84.7	87.8	76.0	1.01	-0.37	7.2	7.0	272.0	242.1	238.4	212.1	
8	87.7	85.8	91.4	79.0	1.20	-0.39	6.9	7.2	317.8	278.3	242.2	212.1	
13	86.5	84.6	88.6	76.9	0.49	-0.22	7.1	6.9	260.4	242.2	228.1	212.1	
14	86.1	84.2	90.0	78.0	-0.89	0.10	6.3	6.3	307.7	319.4	204.4	212.1	
AVG.	86.8	84.8	89.4	77.5	0.45	-0.22	6.9	6.9	289.5	270.5	228.3	212.1	
Std Dv	0.9	0.8	1.9	1.6	1.16	0.28	0.5	0.5	33.8	45.1	20.8	0.0	
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
45	82.9	81.2	84.8	73.0	0.12	-0.07	7.2	7.4	340.3	333.0	310.2	303.6	
46	83.4	81.6	84.6	72.8	0.39	-0.12	6.7	6.9	357.1	342.1	316.8	303.6	
47	83.3	81.5	84.8	73.7	0.25	-0.10	7.3	7.0	426.6	413.5	313.2	303.6	
48	84.3	82.5	85.5	74.2	0.10	-0.05	7.0	7.0	349.7	343.5	309.0	303.6	
1									NO TRACKING DATA				
2									NO TRACKING DATA				
3									NO TRACKING DATA				
4									NO TRACKING DATA				
AVG.	83.5	81.7	84.9	73.4	0.21	-0.08	7.0	7.1	348.4	358.0	312.3	303.6	
Std Dv	0.8	0.7	0.5	0.8	0.16	0.04	0.3	0.2	48.3	45.7	4.3	0.0	
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
5	81.5	80.3	80.5	69.2	0.18	-0.19	7.4	7.3	515.4	486.2	483.4	456.0	
6	80.5	79.4	82.8	71.8	-0.15	-0.12	6.4	6.3	684.1	656.4	475.2	456.0	
11									NO TRACKING DATA				
12	79.7	78.4	79.9	68.2	-0.99	0.08	7.8	7.8	486.8	498.8	445.0	456.0	
AVG.	80.6	79.3	81.1	69.7	-0.32	-0.08	7.2	7.2	562.1	547.1	467.9	456.0	
Std Dv	1.3	1.4	2.2	2.6	0.85	0.20	1.0	1.1	150.8	134.1	28.6	0.0	

TABLE NO. B.2-4.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

SITE: 1				CENTERLINE - CENTER				JUNE 23, 1980						
CORRECTED				CORRECTIONS (dB)				TRACKING DATA (METERS) (ACTUAL) (REFERENCE)						
EV	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	CONSTANTS K(P) K(A)	SR	CPA	SRR	CPAR			
APPROACH														
69	96.2	93.0	98.5	85.2	-0.13	-0.13	0.04	0.04	6.7	6.8	140.4	142.4	116.6	118.2
70	95.7	92.7	97.2	84.4	-0.04	-0.05	0.02	0.02	7.4	7.3	133.7	134.3	117.6	118.2
AVG.	96.0	92.9	97.9	84.8	-0.08	-0.09	0.03	0.03	7.0	7.0	137.0	138.4	117.1	118.2
Std Dv	0.4	0.2	0.9	0.6	0.06	0.06	0.01	0.01	0.5	0.4	4.8	5.7	0.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS														
61	88.9	86.2	92.7	79.1	1.23	1.10	-0.29	-0.30	6.1	6.3	198.0	177.6	168.5	151.2
62	89.9	87.0	92.4	79.2	-0.14	-0.14	0.04	0.04	7.0	7.1	166.2	168.6	149.0	151.2
63	90.0	86.6	93.4	79.5	2.04	1.84	-0.53	-0.56	6.7	7.2	207.4	173.1	181.2	151.2
64	89.8	87.2	92.4	79.3	0.55	0.51	-0.15	-0.14	6.5	6.1	182.8	173.5	159.3	151.2
AVG.	89.7	86.8	92.7	79.3	0.92	0.83	-0.23	-0.24	6.6	6.6	188.6	173.2	164.5	151.2
Std Dv	0.6	0.6	0.6	0.2	1.14	1.03	0.29	0.31	0.5	0.7	22.1	4.5	16.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
57	91.0	88.2	96.2	83.5	1.82	1.63	-0.42	-0.41	6.0	5.9	219.5	186.6	177.8	151.2
58	92.5	89.8	96.9	83.8	0.80	0.72	-0.19	-0.20	6.2	6.5	210.6	196.1	162.4	151.2
59	91.8	89.1	96.9	84.3	0.79	0.70	-0.19	-0.18	6.3	6.2	220.4	205.8	162.0	151.2
60	91.9	89.3	95.9	83.7	1.20	1.06	-0.29	-0.28	6.4	6.2	237.1	213.7	167.7	151.2
AVG.	91.8	89.1	96.5	83.8	1.15	1.03	-0.27	-0.27	6.2	6.2	221.9	200.5	167.5	151.2
Std Dv	0.8	0.8	0.6	0.4	0.59	0.53	0.13	0.13	0.2	0.3	13.5	14.4	9.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
65	-	85.1	95.3	82.1	0.98	0.88	-	-0.20	-	5.2	196.8	180.4	164.9	151.2
66	93.4	89.8	97.8	84.1	0.44	0.39	-0.09	-0.10	5.8	5.9	226.7	218.4	157.0	151.2
67	92.2	88.9	96.7	83.9	0.60	0.52	-0.13	-0.14	6.1	6.3	265.7	252.7	159.0	151.2
68	92.4	89.0	96.9	83.5	0.74	0.66	-0.18	-0.19	6.2	6.4	281.6	263.1	161.8	151.2
AVG.	92.7	88.2	96.6	83.4	0.69	0.61	-0.13	-0.16	6.0	5.9	242.7	228.6	160.7	151.2
Std Dv	1.0	2.6	1.3	1.1	0.28	0.26	0.06	0.06	0.3	0.7	46.9	45.8	4.3	0.0

TABLE NO. B.2-1.16

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA

SITE: 16

CENTERLINE - CENTER (FLUSH)

JUNE 23, 1980

		CORRECTED		CORRECTIONS (dB)					CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	NEL	FNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
34	97.1	94.0	98.9	85.8	0.71	0.68	-0.24	-0.24	7.1	7.1	130.7	120.8	129.2	119.4
36	98.4	95.4	101.5	88.4	-0.14	-0.14	0.04	0.04	6.6	6.6	129.0	130.6	118.0	119.4
40	99.1	96.5	101.6	89.4	0.14	0.13	-0.05	-0.05	6.5	6.2	143.2	140.7	121.5	119.4
42	98.9	96.3	101.1	89.1	0.35	0.34	-0.12	-0.11	6.9	6.3	142.8	137.2	124.3	119.4
44	97.6	95.0	100.5	88.6	0.19	0.19	-0.06	-0.06	6.5	6.1	122.2	119.4	122.2	119.4
54	99.6	97.3	102.8	90.9	0.03	0.02	-0.01	-0.01	5.8	5.6	143.2	142.6	119.9	119.4
56	98.8	96.7	101.7	90.4	0.06	0.06	-0.02	-0.02	6.6	6.2	144.4	143.4	120.3	119.4
Avg.	98.5	95.9	101.2	88.9	0.19	0.18	-0.07	-0.06	6.6	6.3	136.5	133.5	122.2	119.4
Std Dev	1.0	1.2	1.3	1.8	0.30	0.29	0.10	0.10	0.4	0.5	9.9	11.1	4.0	0.0
TAKEOFF														
33	93.7	90.4	95.4	82.0	3.66	3.47	-1.24	-1.27	7.7	7.8	159.9	110.0	158.8	109.3
35	93.3	90.4	95.5	83.1	3.19	2.96	-1.02	-0.98	7.5	7.2	171.4	125.3	149.6	109.3
37	93.0	90.0	95.2	82.2	2.89	2.75	-0.98	-0.98	7.6	7.6	147.2	109.4	147.1	109.3
39	-	90.5	95.9	83.0	2.84	2.62	-	-0.91	-	7.4	144.9	109.3	144.9	109.3
41	92.7	89.9	95.5	82.7	2.15	2.05	-0.65	-0.67	6.7	6.9	136.9	109.6	136.5	109.3
43	93.0	90.1	95.4	82.9	2.50	2.37	-0.79	-0.78	7.1	7.0	142.2	110.1	141.2	109.3
53	92.4	89.7	94.6	82.3	3.55	3.31	-1.12	-1.11	7.4	7.4	164.4	116.1	154.7	109.3
55	91.5	88.8	93.3	81.0	3.40	3.19	-1.10	-1.07	7.6	7.3	155.8	111.4	152.9	109.3
Avg.	92.8	90.0	95.1	82.4	3.02	2.84	-0.99	-0.97	7.4	7.3	152.8	112.7	148.2	109.3
Std Dev	0.8	0.6	0.9	0.8	0.57	0.53	0.22	0.20	0.4	0.3	12.9	6.0	7.9	0.0

TABLE NO. B.2-2.1B

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA															
SITE: 16															
CENTERLINE - CENTER (FLUSH)															
JUNE 23, 1980															
TRACKING DATA (METERS)															
(ACTUAL)															
(REFERENCE)															
CONSTANTS															
K(P) K(A) SR CPA SRR CPAR															
CORRECTIONS (dB)															
^1(P) ^1(A) ^2(P) ^2(A)															
CORRECTED															
EV EPNL NEL PMLTM dBAM															
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS															
21	91.7	89.5	92.9	80.2	0.45	0.45	-0.20	-0.21	7.2	7.4	214.1	200.8	162.5	152.4	
22	92.9	90.4	97.1	85.0	0.10	0.10	-0.07	-0.06	6.0	5.7	251.9	245.7	156.2	152.4	
23	91.5	89.1	93.1	80.2	0.31	0.32	-0.16	-0.16	7.2	7.4	184.4	175.1	160.4	152.4	
24	93.4	90.8	97.4	84.9	0.10	0.11	-0.06	-0.06	6.0	5.7	221.3	216.3	155.9	152.4	
AVG.	92.4	89.9	95.1	82.5	0.24	0.25	-0.12	-0.12	6.6	6.6	217.9	209.5	158.8	152.4	
Std Dv	1.1	0.9	3.0	3.4	0.21	0.21	0.08	0.09	0.8	1.2	34.0	36.2	3.9	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS															
29	90.4	87.8	92.6	79.7	-0.29	-0.23	0.02	0.02	7.0	7.1	170.8	171.9	151.4	152.4	
30	89.4	86.9	93.2	80.0	0.28	0.30	-0.13	-0.14	6.6	7.0	188.0	179.4	159.7	152.4	
31	89.9	87.4	92.0	79.3	0.24	0.24	-0.12	-0.12	7.1	7.0	168.3	161.6	158.7	152.4	
32	88.4	85.9	92.3	79.1	0.73	0.70	-0.24	-0.25	6.4	6.7	204.2	187.1	166.3	152.4	
AVG.	89.5	87.0	92.5	79.5	0.24	0.25	-0.12	-0.12	6.8	7.0	182.8	175.0	159.0	152.4	
Std Dv	1.0	1.0	0.6	0.5	0.51	0.47	0.13	0.14	0.4	0.2	20.5	13.3	7.5	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS															
49	90.5	88.1	95.0	82.5	0.16	0.16	-0.05	-0.05	6.0	6.1	185.3	181.5	155.6	152.4	
50	90.4	88.0	93.5	81.1	-0.79	-0.72	0.19	0.19	6.4	6.4	184.6	177.5	142.5	152.4	
51	90.0	87.5	93.5	81.4	0.58	0.54	-0.16	-0.15	6.3	6.2	254.9	240.6	161.4	152.4	
52	90.3	87.8	93.6	81.1	1.05	0.97	-0.29	-0.29	6.7	6.7	233.0	210.9	168.4	152.4	
AVG.	90.3	87.9	93.9	81.5	0.25	0.24	-0.08	-0.07	6.3	6.4	214.5	207.7	157.0	152.4	
Std Dv	0.2	0.3	0.9	0.8	0.96	0.88	0.25	0.25	0.3	0.3	43.1	30.7	13.5	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
17	93.5	90.9	95.9	83.6	0.16	0.18	-0.12	-0.12	7.1	7.1	219.1	210.5	158.6	152.4	
18	92.0	89.4	97.2	84.2	-0.64	-0.54	0.08	0.08	5.8	6.2	211.8	218.5	147.7	152.4	
19	93.1	90.7	96.4	84.3	0.60	0.58	-0.23	-0.23	6.7	6.6	224.9	207.7	165.1	152.4	
20	91.6	89.2	97.1	84.5	0.53	0.52	-0.18	-0.18	5.8	5.8	235.6	219.0	164.0	152.4	
AVG.	92.6	90.0	96.7	84.1	0.16	0.18	-0.11	-0.11	6.3	6.4	222.8	213.9	158.8	152.4	
Std Dv	1.1	1.1	0.8	0.4	0.70	0.63	0.17	0.17	0.8	0.6	12.3	7.0	9.7	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS															
25	93.8	91.0	97.3	84.6	0.55	0.55	-0.22	-0.22	6.9	6.9	180.5	167.7	163.9	152.4	
26	94.9	92.0	99.3	85.9	0.83	0.79	-0.28	-0.31	6.5	7.3	200.6	181.8	168.1	152.4	
27	95.9	92.8	100.1	86.9	-0.47	-0.42	0.07	0.07	6.2	6.3	152.7	156.6	148.5	152.4	
28	95.5	92.6	100.1	87.0	-0.12	-0.07	-0.03	-0.04	6.4	6.9	204.9	202.5	154.2	152.4	
AVG.	95.0	92.1	99.2	86.1	0.20	0.21	-0.11	-0.12	6.5	6.9	184.7	177.2	158.7	152.4	
Std Dv	1.1	1.0	1.6	1.3	0.73	0.68	0.20	0.21	0.3	0.5	29.2	24.2	11.0	0.0	

DOT/TSC
12/16/81

SITE: 16				CENTERLINE - CENTER (FLUSH)				JUNE 23, 1980						
CORRECTION DATA														
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)				
EV	EPNL	NEL	PMLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
9	95.7	92.8	100.4	87.3	-0.28	-0.24	0.03	0.03	6.0	6.1	118.9	120.3	90.4	91.4
9	95.7	92.8	100.4	87.3	-0.28	-0.24	0.03	0.03	6.0	6.1	118.9	120.3	90.4	91.4
10	94.6	91.7	100.6	87.9	0.17	-0.07	-0.07	-0.07	5.5	5.5	117.0	113.4	94.3	91.4
15	95.5	92.6	101.2	88.0	-0.08	-0.05	-0.02	-0.02	5.6	5.4	112.9	112.0	92.2	91.4
16											NO TRACKING DATA			
AVG.	95.3	92.4	100.8	87.7	-0.06	-0.04	-0.02	-0.02	5.7	5.7	116.2	115.2	92.3	91.4
Std Dv	0.8	0.8	0.6	0.6	0.32	0.29	0.07	0.07	0.4	0.5	4.4	6.3	2.8	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
7	90.8	88.6	92.8	80.7	0.99	0.94	-0.36	-0.34	7.2	6.8	308.6	274.8	239.6	213.4
7	90.8	88.6	92.8	80.7	0.99	0.94	-0.36	-0.34	7.2	6.8	308.6	274.8	239.6	213.4
8	92.4	90.4	96.7	83.9	1.17	1.10	-0.36	-0.42	6.3	7.3	356.0	312.1	243.4	213.4
13	90.8	88.8	93.1	81.1	0.45	0.45	-0.22	-0.22	7.0	6.9	325.4	302.8	229.4	213.4
14	89.9	88.1	93.7	81.6	-0.89	-0.75	0.10	0.11	6.4	6.8	352.8	366.1	205.6	213.4
AVG.	91.0	89.0	94.1	81.8	0.43	0.43	-0.21	-0.22	6.7	6.9	335.7	313.9	229.5	213.4
Std Dv	1.2	1.2	2.2	1.8	1.14	1.03	0.27	0.29	0.6	0.3	27.8	46.8	20.8	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
45	86.6	85.0	88.8	77.1	0.10	0.12	-0.07	-0.07	7.0	7.2	446.7	437.1	311.5	304.8
46	86.9	85.3	87.2	75.9	0.38	0.36	-0.14	-0.14	7.4	7.3	358.2	343.2	318.1	304.8
47	87.0	85.4	89.8	78.1	0.23	0.23	-0.09	-0.09	6.6	6.6	460.8	446.7	314.4	304.8
48	87.5	85.9	89.1	77.3	0.07	0.08	-0.05	-0.06	7.1	7.2	454.2	446.2	319.2	304.8
1									NO TRACKING DATA					
2									NO TRACKING DATA					
3									NO TRACKING DATA					
4									NO TRACKING DATA					
AVG.	87.0	85.4	88.7	77.1	0.19	0.20	-0.09	-0.09	7.0	7.1	430.0	418.3	313.5	304.8
Std Dv	0.5	0.5	1.3	1.1	0.17	0.15	0.05	0.04	0.4	0.4	59.0	61.6	4.3	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
5	85.3	83.9	84.7	73.4	0.20	0.23	-0.19	-0.19	7.7	7.6	548.3	517.2	484.6	457.2
6	84.9	83.7	87.7	75.9	-0.23	-0.10	-0.11	-0.11	6.0	6.4	722.0	692.9	476.4	457.2
11									NO TRACKING DATA					
12	84.0	82.8	85.0	73.3	-0.98	-0.82	0.08	0.08	7.4	7.7	621.9	637.2	446.2	457.2
AVG.	84.7	83.4	85.8	74.2	-0.34	-0.23	-0.07	-0.07	7.0	7.2	630.7	615.8	469.1	457.2
Std Dv	0.9	0.8	2.4	2.1	0.84	0.76	0.20	0.20	1.3	1.0	123.3	126.9	28.6	0.0

DOI/TSC
12/16/81

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	NEL	FMLIN	dBAM	^1(P)	^1(A)	^2(P)	^2(A)	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
69	99.2	96.4	101.7	89.0	-0.13	-0.13	0.04	0.04	6.7	6.6	131.7	133.6	117.8	119.4
70	99.1	96.4	101.3	88.6	-0.04	-0.04	0.01	0.01	6.9	6.9	134.8	135.4	118.9	119.4
Avg.	99.1	96.4	101.5	88.8	-0.08	-0.08	0.02	0.02	6.8	6.8	133.3	134.5	118.3	119.4
Std Dev	0.0	0.0	0.3	0.3	0.06	0.06	0.02	0.02	0.1	0.2	2.1	1.3	0.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS														
61	91.8	89.5	95.3	82.4	1.17	1.07	-0.29	-0.30	6.2	6.4	199.1	178.7	169.8	152.4
62	92.6	90.0	94.0	81.8	-0.14	-0.14	0.05	0.04	7.5	7.1	179.8	182.3	150.2	152.4
63	92.4	90.0	95.6	82.8	1.99	1.78	-0.53	-0.55	6.9	7.1	223.3	186.6	182.4	152.4
64	92.7	90.1	94.9	82.6	0.57	0.51	-0.15	-0.15	6.8	6.5	197.0	187.1	160.5	152.4
Avg.	92.4	89.9	94.9	82.4	0.90	0.80	-0.23	-0.24	6.8	6.8	199.8	183.7	165.7	152.4
Std Dev	0.5	0.4	0.9	0.5	1.11	1.00	0.30	0.31	0.7	0.5	21.9	4.8	16.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
57	93.9	91.6	99.1	86.8	1.77	1.60	-0.40	-0.41	5.7	5.9	220.5	187.7	179.0	152.4
58	95.6	93.0	99.6	87.3	0.79	0.71	-0.20	-0.20	6.4	6.4	239.3	223.0	163.6	152.4
59	94.7	92.6	99.4	87.7	0.76	0.68	-0.19	-0.19	6.4	6.3	221.9	207.2	163.2	152.4
60	94.0	91.9	97.7	86.0	1.16	1.04	-0.29	-0.28	6.5	6.2	237.9	214.6	168.9	152.4
Avg.	94.6	92.3	98.9	86.9	1.12	1.01	-0.27	-0.27	6.3	6.2	229.9	208.1	168.7	152.4
Std Dev	1.0	0.8	1.1	0.9	0.58	0.52	0.12	0.12	0.4	0.2	12.4	18.4	9.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
65	95.6	92.9	99.7	87.5	0.95	0.85	-0.25	-0.23	6.6	6.2	197.8	181.4	166.2	152.4
66	97.0	93.9	101.5	88.5	0.42	0.38	-0.09	-0.09	5.7	5.6	228.2	219.9	158.2	152.4
67	95.9	93.1	100.9	88.6	0.55	0.53	-0.13	-0.13	5.9	6.0	311.7	296.5	160.2	152.4
68	95.7	92.6	100.1	87.4	0.76	0.69	-0.18	-0.17	6.0	6.0	244.6	228.6	163.0	152.4
Avg.	96.0	93.1	100.6	88.0	0.67	0.61	-0.16	-0.15	6.0	5.9	245.6	231.6	161.9	152.4
Std Dev	0.8	0.7	1.0	0.8	0.29	0.25	0.08	0.07	0.4	0.3	55.0	58.6	4.3	0.0

TABLE NO. B.2-1.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

SITE: 1H				CENTERLINE - CENTER (10-METER)						JUNE 23, 1980				
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EPNL	NEL	PNLTH	dBAM	^1(P)	^1(A)	^2(P)	^2(A)	K(P)	K(A)	SR	CPA	SRR	CPAR	
APPROACH														
34	94.3	91.0	96.3	81.9	0.78	0.76	-0.27	-0.27	7.2	7.1	125.3	114.9	119.5	109.5
36	95.7	91.9	99.4	85.5	-0.15	-0.14	0.03	0.03	6.4	6.3	119.3	120.8	108.2	109.5
40	90.1	87.5	93.0	80.5	0.14	0.14	-0.05	-0.05	6.4	6.2	125.5	123.1	111.7	109.5
42	96.5	93.2	99.3	86.2	0.39	0.38	-0.12	-0.12	6.5	6.1	133.3	127.6	114.4	109.5
44	94.9	91.8	97.5	85.2	0.21	0.20	-0.07	-0.06	6.5	5.9	112.3	109.6	112.2	109.5
54	94.2	91.7	98.3	86.1	0.02	0.02	-0.01	-0.01	5.4	5.2	143.9	143.4	109.9	109.5
56	96.0	93.4	99.4	87.4	0.06	0.06	-0.02	-0.02	6.2	6.0	135.3	134.4	110.3	109.5
AVG.	94.5	91.5	97.6	84.7	0.21	0.20	-0.07	-0.07	6.4	6.1	127.8	124.8	112.3	109.5
Std Dv	2.3	2.2	2.6	2.8	0.33	0.32	0.11	0.11	0.6	0.6	11.6	12.6	4.1	0.0
TAKEOFF														
33	90.9	86.7	93.5	78.4	4.10	3.81	-1.27	-1.39	7.2	7.9	150.8	100.5	149.2	99.4
35	90.4	86.8	93.4	79.5	3.45	3.22	-1.06	-1.09	7.1	7.3	145.6	103.5	139.8	99.4
37	90.4	86.4	93.1	78.7	3.27	3.03	-1.03	-1.07	7.3	7.6	137.6	99.5	137.5	99.4
39	-	87.1	94.4	80.4	3.10	2.88	-	-0.90	-	6.8	135.1	99.4	135.1	99.4
41	89.9	86.3	93.3	79.4	2.44	2.26	-0.58	-0.72	6.5	6.9	127.2	99.8	126.6	99.4
43	90.0	86.3	93.3	79.4	2.82	2.60	-0.84	-0.86	6.9	7.1	132.4	100.2	131.4	99.4
53	90.5	87.1	93.4	79.7	3.94	3.65	-1.12	-1.17	6.8	7.1	145.2	99.6	145.0	99.4
55	89.8	86.4	92.8	78.4	3.78	3.51	-1.07	-1.06	6.7	6.7	143.3	99.5	143.2	99.4
AVG.	90.2	86.6	93.4	79.3	3.36	3.12	-1.01	-1.03	7.0	7.2	139.7	100.3	138.5	99.4
Std Dv	0.4	0.4	0.5	0.7	0.62	0.58	0.21	0.22	0.3	0.5	8.5	1.5	8.0	0.0

TABLE NO. B-2-2.1h

SIKORSKY S-76 SPIRIT HELICOPTER

100°/TSC
12/16/81

CORRECTION DATA										JUNE 23, 1980			
SITE: 1H										CENTERLINE - CENTER (10-METER)			
CORRECTED										CONSTANTS			
										K(P) K(A)			
										CORRECTIONS (dB)			
										TRACKING DATA (METERS)			
										(ACTUAL)			
										(REFERENCE)			
EV	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	SR	CPA	SKR	CPAR	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS													
21	88.4	85.8	89.9	76.7	0.51	0.51	-0.21	-0.22	7.0	7.3	192.7	179.9	152.5 142.3
22	90.2	87.6	94.3	82.3	0.11	0.12	-0.07	-0.07	6.3	5.6	271.2	264.1	146.2 142.3
23	88.4	85.5	90.9	76.9	0.41	0.40	-0.17	-0.19	6.8	7.2	175.8	165.7	151.0 142.3
24	90.0	87.3	93.5	81.3	0.15	0.15	-0.07	-0.07	6.3	5.9	213.3	207.8	146.1 142.3
Avg.	89.2	86.5	92.1	79.3	0.29	0.29	-0.13	-0.14	6.6	6.5	213.3	204.4	149.0 142.3
Std Dev	1.2	1.3	2.5	3.6	0.24	0.23	0.09	0.10	0.4	1.1	50.9	53.2	4.0 0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS													
29	86.9	83.9	89.3	75.6	-0.30	-0.25	0.02	0.02	6.9	7.3	175.6	176.8	141.4 142.3
30	86.3	83.2	90.1	76.3	0.34	0.34	-0.15	-0.15	6.7	6.9	178.9	170.0	149.8 142.3
31	86.9	84.1	89.4	76.1	0.26	0.27	-0.13	-0.13	6.8	7.0	169.6	162.4	148.6 142.3
32	85.3	81.9	89.2	75.3	0.81	0.76	-0.26	-0.26	6.4	6.4	195.1	177.7	156.3 142.3
Avg.	86.3	83.3	89.5	75.8	0.28	0.28	-0.13	-0.13	6.7	6.9	179.8	171.7	149.0 142.3
Std Dev	0.9	1.2	0.5	0.6	0.56	0.51	0.14	0.14	0.3	0.5	13.4	8.7	7.5 0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS													
49	88.1	85.1	93.2	79.8	0.18	0.17	-0.06	-0.06	6.1	6.2	176.1	172.2	145.5 142.3
50	87.6	84.7	91.2	77.2	-0.84	-0.77	0.20	0.22	6.4	7.0	157.0	168.7	132.4 142.3
51	87.1	84.1	91.1	77.5	0.63	0.57	-0.16	-0.17	6.1	6.3	191.7	180.3	151.4 142.3
52	87.8	84.7	91.2	77.7	1.13	1.03	-0.32	-0.34	6.9	7.3	201.5	181.2	158.3 142.3
Avg.	87.7	84.7	91.7	78.0	0.27	0.25	-0.08	-0.09	6.4	6.7	181.6	175.6	146.9 142.3
Std Dev	0.5	0.5	1.3	1.4	1.03	0.94	0.27	0.29	0.5	0.6	23.8	7.5	13.4 0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
17	90.4	87.1	93.2	80.2	0.23	0.25	-0.13	-0.13	6.7	6.8	183.8	175.8	148.8 142.3
18	88.1	85.2	93.6	80.5	-0.67	-0.57	0.08	0.08	5.7	5.6	203.5	210.4	137.7 142.3
19	89.6	87.1	92.8	80.3	0.69	0.67	-0.26	-0.25	6.9	6.7	171.2	157.1	155.1 142.3
20	88.1	85.2	93.6	80.4	0.61	0.59	-0.20	-0.20	5.8	6.0	193.0	178.4	153.9 142.3
Avg.	89.0	86.2	93.3	80.4	0.21	0.23	-0.13	-0.12	6.3	6.3	187.9	180.4	148.9 142.3
Std Dev	1.4	1.3	0.5	0.2	0.76	0.69	0.18	0.18	0.7	0.7	16.8	27.1	9.7 0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS													
25	91.1	87.5	96.1	82.0	0.94	0.88	-0.28	-0.31	6.0	6.7	191.0	171.6	158.4 142.3
26	91.5	87.9	96.5	82.6	-0.51	-0.47	0.07	0.07	5.8	6.1	157.4	161.6	138.6 142.3
27	92.0	88.2	97.3	82.9	-0.08	-0.06	-0.04	-0.04	5.8	6.4	195.6	192.9	144.4 142.3
Avg.	91.5	87.9	96.6	82.5	0.12	0.12	-0.08	-0.09	5.9	6.4	181.3	175.4	147.1 142.3
Std Dev	0.6	0.5	0.9	0.6	1.05	0.98	0.25	0.28	0.2	0.5	29.5	22.6	14.4 0.0

NO TRACKING DATA

TABLE NO. B.2-3.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

SITE: 1H				CENTERLINE - CENTER (10-METER)				JUNE 23, 1980						
CORRECTED				CORRECTIONS (dB)				TRACKING DATA (METERS)						
				CONSTANTS				(ACTUAL) (REFERENCE)						
EV	EPNL	NEL	PNLTM	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
9	91.4	88.2	96.3	82.8	-0.24	-0.22	0.03	0.03	6.1	6.3	90.1	91.2	80.4	81.4
10	91.8	88.3	98.2	84.5	0.22	0.22	-0.08	-0.08	5.4	5.5	107.6	103.8	84.4	81.4
15	92.2	88.7	98.0	83.9	-0.05	-0.03	-0.02	-0.02	5.7	5.9	103.9	103.0	82.1	81.4
16											NO TRACKING DATA			
Avg.	91.8	88.4	97.5	83.8	-0.02	-0.01	-0.02	-0.02	5.7	5.9	100.5	99.3	82.3	81.4
Std Dv	0.5	0.4	1.5	1.2	0.33	0.31	0.08	0.08	0.5	0.6	13.0	10.0	2.8	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
7	86.4	83.9	87.4	75.0	1.08	1.01	-0.41	-0.41	7.7	7.8	263.5	233.4	229.5	203.3
8	87.1	84.6	90.2	78.4	1.28	1.19	-0.42	-0.39	7.0	6.5	389.2	338.6	233.7	203.3
13	87.5	85.1	89.1	76.7	0.54	0.53	-0.23	-0.24	7.1	7.3	252.0	233.7	219.3	203.3
14	86.9	84.5	90.8	78.5	-0.82	-0.69	0.10	0.11	6.3	6.4	261.8	272.0	195.7	203.3
Avg.	87.0	84.5	89.4	77.1	0.52	0.51	-0.24	-0.23	7.0	7.0	291.7	269.4	219.6	203.3
Std Dv	0.5	0.6	1.8	2.0	1.16	1.04	0.30	0.29	0.7	0.8	79.9	60.7	20.9	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
45	82.8	80.9	85.0	73.0	0.12	0.14	-0.07	-0.07	7.0	7.1	352.8	345.0	301.4	294.7
46	83.7	81.8	85.1	72.5	0.41	0.38	-0.14	-0.14	7.1	7.4	367.1	351.3	308.0	294.7
47	84.3	82.2	87.1	74.9	0.26	0.25	-0.09	-0.09	6.6	6.6	419.2	406.0	304.4	294.7
48	84.6	82.9	86.4	74.3	0.10	0.11	-0.06	-0.06	7.1	7.3	340.8	334.6	300.2	294.7
1											NO TRACKING DATA			
2											NO TRACKING DATA			
3											NO TRACKING DATA			
4											NO TRACKING DATA			
Avg.	83.9	82.0	85.9	73.7	0.22	0.22	-0.09	-0.09	6.9	7.1	370.0	359.2	303.5	294.7
Std Dv	1.0	1.0	1.2	1.4	0.18	0.15	0.04	0.04	0.3	0.4	42.3	39.1	4.3	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
5	80.6	78.9	79.6	68.0	0.21	0.24	-0.19	-0.20	7.5	7.5	559.9	527.5	474.6	447.1
6	-	78.0	81.6	69.8	-0.07	-0.02	-	-0.12	-	6.7	608.6	583.5	466.4	447.1
11											NO TRACKING DATA			
12	80.4	79.0	80.9	68.9	-0.88	-0.74	0.08	0.09	7.5	8.0	521.9	535.1	436.2	447.1
Avg.	80.5	78.6	80.7	68.9	-0.25	-0.17	-0.06	-0.08	7.5	7.4	563.5	548.7	459.1	447.1
Std Dv	0.1	0.8	1.4	1.3	0.80	0.72	0.19	0.21	0.0	1.0	61.4	43.0	28.6	0.0

TABLE NO. B.2-4.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 23, 1980

SITE: 1H

CENTERLINE - CENTER (10-METER)

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPHL	NEL	PNLTH	DBAH	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
69	94.5	91.2	97.3	83.7	-0.14	-0.15	0.04	0.05	6.5	6.7	132.3	134.4	107.8	109.5
70	93.7	90.7	95.6	82.7	-0.05	-0.06	0.02	0.02	7.2	7.0	116.2	117.0	108.8	109.5
Avg.	94.1	90.9	96.4	83.2	-0.09	-0.10	0.03	0.03	6.9	6.9	124.3	125.7	108.3	109.5
Std Dev	0.6	0.3	1.2	0.7	0.06	0.06	0.01	0.02	0.5	0.2	11.4	12.3	0.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS														
61	88.8	86.1	92.6	78.9	1.30	1.16	-0.31	-0.32	6.2	6.4	206.4	183.9	159.7	142.3
62	87.7	84.8	90.3	77.1	-0.15	-0.15	0.05	0.05	6.9	7.0	157.6	160.0	140.2	142.3
63	89.9	86.8	93.6	79.6	2.13	1.92	-0.55	-0.59	6.6	7.2	199.3	164.6	172.3	142.3
64	89.8	87.0	92.4	79.5	0.61	0.54	-0.15	-0.16	6.4	6.5	174.4	165.0	150.4	142.3
Avg.	89.1	86.2	92.2	78.8	0.97	0.87	-0.24	-0.25	6.5	6.8	184.4	168.4	155.7	142.3
Std Dev	1.3	1.2	1.7	1.4	1.19	1.08	0.31	0.33	0.4	0.5	27.6	13.0	16.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
57	91.2	88.4	96.4	83.7	1.94	1.74	-0.45	-0.43	6.0	5.8	243.1	204.8	169.0	142.3
58	92.4	89.5	96.8	83.7	0.85	0.76	-0.21	-0.21	6.4	6.5	230.9	214.1	153.5	142.3
59	91.8	89.1	97.4	84.5	0.82	0.74	-0.18	-0.19	5.6	5.9	212.8	197.8	153.1	142.3
60	92.1	89.2	96.3	83.2	1.23	1.10	-0.30	-0.31	6.2	6.5	202.4	181.3	158.9	142.3
Avg.	91.9	89.0	96.7	83.8	1.21	1.08	-0.28	-0.28	6.1	6.2	222.3	199.5	158.6	142.3
Std Dev	0.6	0.6	0.6	0.7	0.64	0.57	0.15	0.13	0.5	0.5	22.3	17.0	9.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
65	94.7	90.6	98.4	84.7	0.46	0.41	-0.11	-0.10	6.4	6.0	219.5	210.9	148.2	142.3
66	92.6	89.2	97.4	83.9	0.60	0.53	-0.14	-0.15	6.1	6.4	183.4	173.8	150.1	142.3
67	91.8	88.4	96.8	83.0	0.81	0.73	-0.18	-0.19	5.8	6.2	200.9	187.0	153.0	142.3
Avg.	93.0	89.4	97.5	83.9	0.62	0.56	-0.14	-0.15	6.1	6.2	201.3	190.6	150.4	142.3
Std Dev	2.1	1.6	1.1	1.3	0.25	0.23	0.05	0.06	0.4	0.3	23.6	26.6	3.4	0.0

NO TRACKING DATA

DOT/TSC
12/16/81

CORRECTION DATA

JUNE 23, 1980

CENTERLINE - 150 N. WEST

SITE: 2

CORRECTED				CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS)					
EV	EPNL	NEL	PWL IN	dBAM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
34	96.8	93.5	99.5	86.8	0.41	0.40	-0.14	-0.13	6.9	6.5	108.1	103.0	107.6	102.6
36	98.8	95.4	103.5	90.0	-0.03	-0.03	0.00	0.00	5.5	5.6	126.7	126.7	102.6	102.6
40	97.7	94.4	101.4	88.9	0.08	0.08	-0.03	-0.03	6.1	5.4	119.0	117.6	103.7	102.6
42	97.6	94.3	102.1	89.2	0.36	0.35	-0.11	-0.10	5.9	5.5	128.5	123.3	104.9	102.6
44	97.5	94.1	100.7	87.4	0.17	0.16	-0.06	-0.06	7.1	6.9	124.4	121.9	104.7	102.6
54	98.0	95.1	101.8	88.9	0.32	0.31	-0.09	-0.09	5.9	5.9	121.5	117.3	106.3	102.6
56	97.1	94.1	102.3	89.1	0.24	0.23	-0.06	-0.06	5.3	5.5	123.6	120.4	105.3	102.6
AVG.														
Std Dev	97.7	94.4	101.6	88.6	0.22	0.21	-0.07	-0.07	6.1	5.9	121.7	118.6	105.3	102.6
	0.7	0.7	1.4	1.2	0.17	0.17	0.05	0.05	0.7	0.6	7.4	8.3	1.9	0.0
TAKEOFF														
33	-	86.1	90.8	77.8	-1.61	-1.42	-	0.48	-	7.8	119.8	138.0	114.1	131.3
35	88.4	85.3	91.0	78.3	-1.82	-1.67	0.47	0.45	6.7	6.3	129.8	151.6	111.5	131.3
39	88.9	85.6	91.0	77.7	-1.52	-1.38	0.43	0.42	7.2	7.0	127.4	146.1	114.5	131.3
41	88.4	85.4	90.6	77.8	-1.99	-1.85	0.55	0.53	6.8	6.6	118.8	142.9	109.1	131.3
41	88.1	85.1	90.2	77.9	-2.21	-2.02	0.62	0.56	7.0	6.3	114.2	140.3	104.9	131.3
43	88.2	85.3	89.8	77.6	-1.83	-1.63	0.52	0.48	7.2	6.7	118.8	140.4	111.1	131.3
53	88.4	85.5	91.0	78.5	-1.43	-1.35	0.38	0.37	6.6	6.4	131.0	149.8	114.8	131.3
55	87.6	84.7	88.6	75.6	-1.80	-1.65	0.54	0.54	7.4	7.5	119.0	140.7	111.0	131.3
AVG.														
Std Dev	88.3	85.4	90.4	77.7	-1.78	-1.62	0.50	0.48	7.0	6.8	122.2	143.7	111.6	131.3
	0.4	0.4	0.9	0.9	0.27	0.25	0.09	0.07	0.3	0.6	6.5	5.3	3.0	0.0

TABLE NO. B.2-2.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

SITE: 2				CENTERLINE - 150 N. WEST				JUNE 23, 1980							
CORRECTED				CORRECTIONS (dB)				CONSTANTS				TRACKING DATA (METERS) (ACTUAL)			
EV	EPNL	MEL	PHLTH	GBAH	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS															
21	89.1	86.4	91.1	77.6	0.51	0.50	-0.20	-0.21	6.6	7.0	179.3	167.4	161.9	151.2	
22	91.4	88.8	96.4	84.2	0.04	0.05	-0.04	-0.03	5.6	5.2	197.5	194.5	153.5	151.2	
23	89.4	86.5	90.6	77.3	0.31	0.32	-0.16	-0.17	7.3	7.5	179.4	170.5	159.1	151.2	
24	91.8	89.9	96.2	83.7	0.38	0.38	-0.12	-0.12	5.6	5.4	211.6	201.1	159.1	151.2	
Avg.	90.4	87.6	93.6	80.7	0.31	0.31	-0.13	-0.13	6.3	6.3	191.9	183.4	158.4	151.2	
Std Dv	1.7	1.7	3.9	4.6	0.24	0.23	0.08	0.10	1.0	1.4	19.2	20.7	4.3	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS															
29	87.2	84.7	90.2	77.0	-0.31	-0.26	0.03	0.03	6.5	6.8	159.6	161.1	149.8	151.2	
30	86.2	83.5	90.2	77.2	0.28	0.30	-0.13	-0.14	6.5	6.6	192.5	183.6	158.5	151.2	
31	87.1	84.6	90.2	77.3	-0.04	0.00	-0.05	-0.05	6.5	6.7	175.8	172.9	153.7	151.2	
32	85.5	82.7	88.1	75.1	0.56	0.55	-0.22	-0.22	7.0	7.2	183.6	170.9	162.4	151.2	
Avg.	86.5	83.9	89.7	76.6	0.12	0.15	-0.09	-0.09	6.6	6.8	177.9	172.1	156.1	151.2	
Std Dv	1.0	1.2	1.3	1.2	0.46	0.43	0.13	0.13	0.3	0.3	17.1	11.3	6.7	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS															
49	-	85.0	92.2	79.2	0.27	0.25	-	-0.08	-	6.4	182.7	177.4	155.7	151.2	
50	89.2	86.2	93.1	79.8	-0.56	-0.51	0.13	0.13	6.4	6.4	164.9	172.7	144.4	151.2	
51	87.7	84.9	91.2	78.0	0.54	0.49	-0.15	-0.15	6.5	6.6	188.1	178.3	159.5	151.2	
52	87.9	85.2	91.3	78.3	0.88	0.80	-0.25	-0.25	6.7	6.9	188.0	172.8	164.5	151.2	
Avg.	88.3	85.3	92.0	78.8	0.28	0.26	-0.09	-0.09	6.5	6.6	180.9	175.3	156.0	151.2	
Std Dv	1.1	0.7	1.1	1.0	0.75	0.68	0.28	0.20	0.2	0.2	13.4	3.6	10.5	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
17	90.8	87.9	94.6	81.7	0.26	0.27	-0.13	-0.13	6.4	6.4	180.9	172.5	158.5	151.2	
18	89.4	86.6	94.9	81.8	-0.39	-0.31	0.02	0.03	5.4	5.9	197.0	199.0	149.7	151.2	
19	-	87.4	93.6	81.1	0.56	0.56	-	-0.21	-	6.4	177.8	165.1	142.8	151.2	
20	-	86.1	94.0	81.1	0.50	0.50	-	-0.19	-	6.3	215.1	200.5	162.2	151.2	
Avg.	90.1	87.0	94.3	81.4	0.23	0.25	-0.05	-0.12	5.9	6.2	192.7	184.3	158.3	151.2	
Std Dv	1.0	1.0	0.7	0.5	0.53	0.49	0.11	0.13	0.7	0.3	21.0	22.2	7.4	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS															
25	91.1	88.1	95.1	82.1	0.57	0.56	-0.20	-0.21	6.3	6.5	181.8	168.8	162.9	151.2	
26	92.0	88.9	96.5	83.0	0.88	0.83	-0.29	-0.31	6.6	7.0	222.7	201.1	167.5	151.2	
27	92.9	89.6	97.2	84.0	-0.51	-0.46	0.07	0.07	6.0	6.1	164.3	168.7	147.2	151.2	
28	92.0	88.8	97.0	85.1	0.04	0.07	-0.07	-0.07	6.2	6.9	195.8	190.9	155.0	151.2	
Avg.	92.0	88.8	96.4	83.0	0.24	0.25	-0.12	-0.13	6.3	6.6	191.1	182.4	158.1	151.2	
Std Dv	0.9	0.8	1.2	1.0	0.75	0.70	0.19	0.20	0.3	0.5	30.2	19.9	10.9	0.0	

TABLE NO. B.2-3.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

JUNE 23, 1980												
CENTERLINE - 150 M. WEST												
SITE: 2												
CORRECTED					CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)		
EV	EPNL	NEL	PNLTH	GBAH	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS												
9	92.8	89.6	98.1	84.7	0.05	-0.05	6.4	6.4	113.0	110.8	92.0	90.2
10	91.4	88.6	97.4	84.0	0.14	-0.07	5.7	5.5	99.8	97.2	92.7	90.2
15	92.4	89.3	98.0	84.9	-0.28	0.03	5.6	5.4	104.1	105.5	89.0	90.2
16	92.8	89.5	99.4	85.7	-0.15	0.00	5.1	5.3	118.6	118.4	90.4	90.2
Avg.	92.3	89.1	98.2	84.8	-0.06	-0.02	5.7	5.6	108.9	108.0	91.0	90.2
Std Dv	0.8	0.9	1.0	0.9	0.23	0.06	0.7	0.6	10.4	10.9	2.0	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS												
7	87.1	84.9	88.2	76.1	1.04	-0.38	7.3	7.3	258.4	229.6	238.7	212.1
8	87.4	85.2	90.8	78.1	1.33	-0.44	7.1	7.4	278.5	241.4	244.7	212.1
13	87.7	85.6	90.1	78.1	0.38	-0.18	6.7	6.7	254.9	239.3	225.9	212.1
14	87.0	84.7	90.6	78.2	-0.67	0.06	6.6	6.8	336.4	343.5	207.8	212.1
Avg.	87.3	85.1	89.9	77.6	0.52	-0.23	6.9	7.1	282.1	263.5	229.3	212.1
Std Dv	0.4	0.5	1.5	1.2	1.09	0.28	0.4	0.4	46.2	65.7	20.0	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS												
45	83.7	81.9	85.0	73.2	0.29	-0.11	7.5	7.6	487.1	470.5	314.2	303.6
46	83.7	81.9	85.2	73.2	0.45	-0.14	7.0	7.1	345.2	329.2	318.4	303.6
47	84.0	82.2	85.4	73.7	0.14	-0.07	7.4	7.4	350.2	342.3	310.6	303.6
48	84.3	82.8	86.2	75.1	0.08	-0.05	6.8	6.5	352.6	346.7	308.7	303.6
1									NO TRACKING DATA			
2									NO TRACKING DATA			
3									NO TRACKING DATA			
4									NO TRACKING DATA			
Avg.	83.9	82.2	85.4	73.8	0.24	-0.09	7.2	7.2	383.8	372.2	313.0	303.6
Std Dv	0.3	0.5	0.6	1.1	0.20	0.05	0.4	0.6	84.4	80.8	5.2	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS												
5	82.0	80.4	81.6	70.3	0.20	-0.19	7.5	7.5	523.3	494.1	482.9	456.0
6	80.8	79.4	80.7	69.7	0.03	-0.14	7.5	7.2	570.5	546.3	476.1	456.0
11									NO TRACKING DATA			
12	80.1	78.9	80.5	69.5	-1.08	0.08	7.6	7.5	668.2	684.9	444.9	456.0
Avg.	81.0	79.6	80.9	69.8	-0.28	-0.08	7.5	7.4	587.3	575.1	468.0	456.0
Std Dv	1.4	1.1	0.8	0.6	0.98	0.20	0.1	0.2	104.5	139.5	28.7	0.0

TABLE NO. B.2-4.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 23, 1980

CENTERLINE - 150 N. WEST

SITE: 2

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)				
EV	EPNL	NEL	FNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
69	96.2	93.2	100.3	87.8	-0.07	-0.07	0.02	0.02	5.8	5.5	118.9	119.9	101.8	102.6
70	95.5	92.6	98.0	85.0	0.31	0.23	-0.07	-0.07	6.8	6.7	114.1	111.3	105.2	102.6
Avg.	95.9	92.9	99.2	86.4	0.12	0.08	-0.02	-0.02	6.3	6.1	116.5	115.6	103.5	102.6
Std Dv	0.5	0.4	1.7	2.0	0.27	0.21	0.06	0.06	0.7	0.8	3.4	6.1	2.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS														
61	89.0	86.0	90.4	77.0	1.17	1.06	-0.34	-0.35	7.4	7.6	176.4	158.6	168.1	151.2
62	89.7	86.9	92.1	79.4	-0.19	-0.19	0.06	0.05	6.8	6.5	172.1	175.4	148.4	151.2
63	88.5	86.0	90.9	78.1	1.96	1.73	-0.55	-0.42	7.2	5.5	208.9	175.3	180.1	151.2
64	90.0	86.9	92.9	80.0	0.40	0.36	-0.11	-0.11	6.8	6.4	238.2	229.4	157.0	151.2
Avg.	89.3	86.4	91.6	78.7	0.83	0.74	-0.23	-0.21	7.0	6.5	198.9	184.7	163.4	151.2
Std Dv	0.8	0.6	1.4	1.7	1.14	1.02	0.33	0.27	0.4	1.1	37.9	37.8	16.9	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
57	91.3	88.3	96.3	83.6	1.81	1.61	-0.39	-0.41	5.6	5.8	228.7	194.3	177.9	151.2
58	92.6	89.7	96.4	83.4	0.69	0.61	-0.18	-0.18	6.4	6.5	191.7	180.0	160.9	151.2
59	91.7	88.7	97.2	84.0	1.00	0.90	-0.22	-0.23	5.6	5.9	201.4	184.1	165.4	151.2
60	91.5	88.9	95.7	82.8	1.49	1.32	-0.36	-0.37	6.2	6.4	222.3	194.8	172.5	151.2
Avg.	91.8	88.9	96.4	83.5	1.25	1.11	-0.29	-0.30	6.0	6.1	211.0	188.3	169.2	151.2
Std Dv	0.7	0.7	0.8	0.6	0.61	0.54	0.13	0.13	0.5	0.4	21.3	9.1	9.2	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
65	93.3	90.2	98.7	86.0	0.73	0.65	-0.15	-0.14	5.4	5.2	245.2	230.1	161.1	151.2
66	93.4	89.6	97.7	84.6	0.47	0.43	-0.11	-0.11	5.9	5.7	167.8	160.8	157.7	151.2
67	93.3	89.6	98.5	85.3	0.35	0.31	-0.07	-0.07	5.1	5.2	207.1	200.9	155.9	151.2
68	-	88.9	96.5	83.3	0.76	0.69	-	-0.19	-	6.2	179.2	167.2	162.0	151.2
Avg.	93.3	89.6	97.9	84.8	0.58	0.52	-0.11	-0.13	5.4	5.6	199.8	189.8	159.2	151.2
Std Dv	0.0	0.7	1.2	1.4	0.24	0.22	0.06	0.06	0.6	0.6	42.2	39.4	3.5	0.0

SIKORSKY S-76 SPIRIT HELICOPTER

SITE: 3

TIME - 130 H. EAST

JUNE 23, 1980

CORRECTED				CORRECTIONS (dB)					CONSTANTS		TRACKING DATA (ACTUAL)				TRACKING DATA (REFERENCE)			
EV	EPNL	NEL	PMLTH	GBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR				
APPROACH																		
34	94.7	91.3	96.7	82.2	1.09	1.05	-0.33	-0.35	6.3	6.7	154.8	137.4	150.9	133.9				
36	94.9	91.3	96.8	83.5	-0.12	-0.11	0.03	0.03	6.9	6.8	136.3	137.5	132.7	133.9				
40	95.7	92.5	98.3	85.9	0.09	0.09	-0.03	-0.03	6.1	5.6	150.3	148.3	135.6	133.9				
42	95.2	92.0	97.4	85.2	0.20	0.20	-0.08	-0.07	6.9	6.0	156.2	152.3	137.3	133.9				
44											NO TRACKING DATA							
54	94.9	91.8	97.8	85.0	0.08	0.07	-0.03	-0.03	6.2	6.2	163.0	161.5	135.2	133.9				
56	94.5	91.2	96.6	84.3	-0.17	-0.17	0.05	0.05	6.9	6.2	162.8	165.7	131.6	133.9				
Avg.	95.0	91.7	97.3	84.3	0.19	0.19	-0.06	-0.07	6.6	6.3	153.9	150.5	137.2	133.9				
Std Dev	0.5	0.6	0.8	1.5	0.51	0.50	0.15	0.16	0.4	0.5	11.1	13.2	7.8	0.0				
TAKEOFF																		
33	93.0	88.9	96.7	82.4	8.38	7.74	-2.66	-2.65	7.4	7.4	187.1	82.2	186.8	82.1				
35	92.1	88.6	95.6	82.3	8.42	7.78	-2.70	-2.55	7.7	7.2	212.5	94.7	184.4	82.1				
37	91.6	88.1	95.0	81.2	7.86	7.30	-2.51	-2.54	7.5	7.6	177.0	82.2	176.9	82.1				
39	92.6	89.2	97.1	83.1	7.69	7.17	-2.17	-2.33	6.7	7.2	173.5	82.1	173.6	82.1				
41	92.2	88.9	96.6	82.9	7.07	6.57	-2.03	-2.15	6.8	7.2	163.9	82.1	163.9	82.1				
43	91.8	88.4	96.1	82.2	7.25	6.72	-2.12	-2.24	6.9	7.3	166.7	82.2	166.5	82.1				
53	92.0	88.7	96.0	82.4	8.59	7.95	-2.50	-2.55	7.6	7.2	201.4	88.8	186.2	82.1				
55	90.8	87.6	94.4	81.5	8.34	7.75	-2.63	-2.47	7.6	7.1	182.8	82.2	182.6	82.1				
Avg.	92.0	88.6	95.9	82.2	7.95	7.37	-2.41	-2.43	7.2	7.3	183.1	84.6	177.6	82.1				
Std Dev	0.7	0.5	1.0	0.7	0.62	0.56	0.29	0.19	0.4	0.2	18.2	5.1	9.6	0.0				

TABLE NO. R.2-2.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

SITE: 3			CENTERLINE - 150 N. EAST				JUNE 23, 1980							
CORRECTED					CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS)				
										(ACTUAL)				
EV	EPNL	MEL	PWLTH	GBAN	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS														
21	88.4	85.7	90.1	77.1	0.41	0.42	-0.18	-0.17	6.9	6.7	178.6	168.3	160.5	151.2
22	87.9	85.2	89.7	77.6	0.24	0.26	-0.14	-0.13	7.6	7.1	373.5	358.1	157.7	151.2
23	87.5	84.8	89.1	75.9	0.34	0.36	-0.17	-0.18	7.4	7.6	179.9	170.4	159.6	151.2
24	88.5	85.6	90.7	76.8	-0.19	-0.15	0.00	0.00	7.3	7.8	305.5	305.9	151.0	151.2
Avg.	88.1	85.3	89.9	76.8	0.20	0.22	-0.12	-0.12	7.3	7.3	259.4	250.7	157.2	151.2
Std Dev	0.6	0.5	0.8	0.9	0.33	0.31	0.10	0.10	0.4	0.6	118.3	117.9	5.3	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS														
29	87.0	84.4	89.6	77.0	-0.22	-0.16	0.00	0.00	6.6	6.5	167.8	167.8	151.2	151.2
30	85.8	83.1	89.2	75.5	0.41	0.41	-0.17	-0.18	6.6	7.3	167.1	157.8	160.1	151.2
31	86.0	83.5	88.2	75.6	0.44	0.44	-0.18	-0.18	6.8	6.7	181.1	170.3	160.8	151.2
32	84.4	81.8	87.8	74.4	0.92	0.87	-0.30	-0.29	6.6	6.4	186.1	167.6	167.8	151.2
Avg.	85.8	83.2	88.7	75.6	0.39	0.39	-0.16	-0.16	6.6	6.7	175.5	165.9	160.0	151.2
Std Dev	1.3	1.3	1.0	1.3	0.57	0.52	0.15	0.15	0.1	0.5	11.7	6.8	8.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS														
49	87.7	85.1	91.3	78.7	0.00	0.01	-0.02	-0.02	6.8	6.9	190.2	189.0	152.1	151.2
50	87.2	84.4	90.2	77.5	-0.67	-0.61	0.16	0.16	6.7	6.6	167.9	177.6	142.9	151.2
51	86.1	83.6	90.0	76.6	0.67	0.61	-0.17	-0.18	6.2	6.5	188.4	176.5	161.4	151.2
52	87.1	84.5	90.3	78.0	1.25	1.14	-0.36	-0.34	7.0	6.6	180.0	159.8	170.3	151.2
Avg.	87.0	84.4	90.5	77.7	0.31	0.29	-0.10	-0.09	6.7	6.7	181.6	175.7	156.7	151.2
Std Dev	0.8	0.8	0.7	1.1	1.02	0.93	0.27	0.26	0.4	0.2	12.5	14.7	14.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
17	89.4	86.8	91.9	79.3	0.23	0.23	-0.13	-0.13	7.1	7.1	158.2	151.7	157.6	151.2
18	88.1	85.3	93.0	79.6	-0.81	-0.71	0.15	0.15	6.4	6.6	162.1	171.0	143.3	151.2
19	89.4	87.0	92.9	80.9	0.44	0.43	-0.23	-0.22	6.5	6.2	183.8	169.3	164.1	151.2
20	87.6	84.9	92.5	79.6	0.72	0.69	-0.23	-0.24	6.0	6.1	191.5	175.2	165.2	151.2
Avg.	88.6	86.0	92.6	79.8	0.19	0.21	-0.11	-0.11	6.5	6.5	173.9	166.8	157.6	151.2
Std Dev	1.1	1.3	0.6	0.9	0.86	0.79	0.22	0.22	0.6	0.5	19.9	12.7	12.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
25	90.1	87.1	93.3	81.0	0.48	0.48	-0.18	-0.18	6.5	6.4	165.0	154.6	161.4	151.2
26	90.3	87.7	94.9	81.8	0.78	0.75	-0.27	-0.28	6.8	6.9	180.6	164.6	165.9	151.2
27	92.1	88.8	96.1	83.0	-0.44	-0.39	0.06	0.06	6.2	6.4	148.0	151.4	147.8	151.2
28	91.2	88.1	95.5	81.8	0.01	0.03	-0.06	-0.06	6.5	7.0	159.8	156.6	154.2	151.2
Avg.	91.0	87.9	95.0	81.9	0.21	0.22	-0.11	-0.11	6.5	6.7	163.4	156.8	157.3	151.2
Std Dev	1.0	0.9	1.5	1.0	0.66	0.62	0.18	0.18	0.3	0.4	16.6	6.9	9.8	0.0

TABLE NO. B.2-3.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOI/TSC
12/18/81

CORRECTION DATA

JUNE 23, 1980																			
CENTERLINE - 150 M. EAST																			
SITE: 3																			
CORRECTED					CORRECTIONS (dB)					CONSTANTS					TRACKING DATA (METERS)				
															(ACTUAL)				
															(REFERENCE)				
EU	EPML	NEL	PNLTH	GBAM	^1(P)	^1(A)	^2(P)	^2(A)	K(P)	K(A)	SR	CPA	SRR	CPAR					
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS																			
9	93.1	90.2	97.9	84.8	-0.41	-0.38	0.07	0.07	5.9	6.1	89.4	91.9	87.7	90.2					
10	92.1	89.2	98.4	85.3	0.33	0.32	-0.11	-0.11	5.1	5.4	110.7	105.6	94.6	90.2					
15	90.9	88.1	95.6	83.3	0.12	0.13	-0.07	-0.06	6.1	5.6	100.5	98.0	92.5	90.2					
16	91.1	87.9	97.0	83.6	0.22	0.23	-0.09	-0.09	5.6	5.9	103.5	99.8	93.6	90.2					
Avg.	91.8	88.8	97.2	84.2	0.06	0.07	-0.05	-0.05	5.7	5.8	101.0	98.8	92.1	90.2					
Std Dv	1.3	1.3	1.5	1.2	0.40	0.38	0.10	0.10	0.5	0.4	10.9	6.9	3.7	0.0					
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS																			
7	89.4	87.2	92.0	86.3	0.87	0.83	-0.30	-0.29	6.6	6.3	285.9	257.2	235.8	212.1					
8	87.7	85.9	91.2	78.7	1.10	1.03	-0.36	-0.40	7.0	7.4	251.0	221.9	240.0	212.1					
13	86.7	84.7	88.9	77.5	0.55	0.55	-0.24	-0.22	6.8	6.5	282.9	261.3	229.6	212.1					
14	86.6	84.4	89.9	77.3	-0.83	-0.74	0.13	0.14	6.9	7.0	221.6	231.8	202.9	212.1					
Avg.	87.6	85.6	90.5	78.5	0.42	0.42	-0.20	-0.19	6.8	6.8	260.4	243.0	227.1	212.1					
Std Dv	1.6	1.6	1.7	1.7	1.06	0.98	0.28	0.29	0.2	0.7	37.0	23.5	20.4	0.0					
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS																			
45	83.3	81.7	85.4	73.7	0.04	0.06	-0.05	-0.05	7.1	7.2	320.3	315.4	308.3	303.6					
46	84.3	82.4	84.8	72.6	0.34	0.32	-0.12	-0.12	7.1	7.2	443.2	426.2	315.7	303.6					
47	83.6	81.9	85.0	74.1	0.36	0.33	-0.13	-0.11	7.3	6.7	349.7	355.4	315.9	303.6					
48	84.3	82.4	86.1	75.2	0.14	0.13	-0.06	-0.06	6.7	6.4	369.5	361.8	310.0	303.6					
1											NO TRACKING DATA								
2											NO TRACKING DATA								
3											NO TRACKING DATA								
4											NO TRACKING DATA								
Avg.	83.9	82.1	85.3	73.9	0.22	0.21	-0.09	-0.08	7.0	6.9	375.7	364.7	312.5	303.6					
Std Dv	0.6	0.4	0.7	1.3	0.19	0.17	0.05	0.04	0.3	0.5	62.0	56.2	4.7	0.0					
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS																			
5	83.1	81.9	83.0	72.8	0.22	0.19	-0.18	-0.17	7.2	6.9	561.4	529.9	483.0	456.0					
6	81.9	80.9	82.3	71.1	-0.33	-0.22	-0.13	-0.13	7.6	7.7	745.0	716.4	474.2	456.0					
11											NO TRACKING DATA								
12	80.6	79.7	80.4	69.0	-1.24	-0.99	0.08	0.08	7.8	8.1	680.8	696.5	445.7	456.0					
Avg.	81.9	80.8	81.9	71.0	-0.45	-0.34	-0.08	-0.07	7.5	7.6	662.4	647.6	467.6	456.0					
Std Dv	1.7	1.5	1.9	2.7	1.04	0.85	0.20	0.19	0.4	0.9	131.8	144.8	27.6	0.0					

TABLE NO. B-2-4.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/17/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

JUNE 23, 1980														
CENTERLINE - 150 M. EAST														
SITE: 3														
CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)			
EV	EPNL	NEL	PWLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
69	95.6	92.3	96.8	83.6	-0.14	-0.14	0.05	0.05	7.2	7.1	137.7	139.8	131.9	133.9
70	95.6	92.4	98.0	84.6	-0.17	-0.18	0.06	0.06	6.7	6.9	135.7	138.3	131.4	133.9
AVG.	95.6	92.4	97.4	84.1	-0.15	-0.16	0.05	0.05	7.0	7.0	136.7	139.1	131.6	133.9
Std Dv	0.0	0.1	0.8	0.7	0.02	0.03	0.01	0.01	0.4	0.1	1.4	1.0	0.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS														
61	87.9	85.1	90.5	77.4	0.77	0.68	-0.19	-0.19	6.3	6.3	193.6	180.7	162.0	151.2
62	89.2	86.6	91.2	78.5	0.09	0.07	-0.02	-0.02	6.4	6.4	169.9	168.7	152.3	151.2
63	88.6	85.5	91.1	77.8	2.11	1.89	-0.59	-0.60	7.1	7.3	205.0	169.7	182.7	151.2
64	88.7	85.6	91.2	78.4	0.79	0.71	-0.20	-0.20	6.6	6.6	188.8	175.6	162.4	151.2
AVG.	88.6	85.7	91.0	78.0	0.94	0.84	-0.25	-0.25	6.6	6.6	189.3	173.7	164.8	151.2
Std Dv	0.7	0.8	0.4	0.6	1.04	0.93	0.30	0.30	0.5	0.6	17.9	6.9	15.6	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
57	90.4	87.5	94.3	81.4	1.80	1.62	-0.46	-0.51	6.5	7.1	212.0	179.9	178.2	151.2
58	91.5	89.0	96.1	84.1	0.70	0.64	-0.17	-0.16	5.8	5.4	187.1	175.2	161.4	151.2
59	90.4	87.8	94.7	81.9	0.53	0.60	-0.17	-0.18	6.4	6.7	168.0	157.9	160.8	151.2
60	90.9	88.2	95.2	82.9	0.85	0.77	-0.21	-0.22	6.1	6.3	180.6	167.0	163.5	151.2
AVG.	90.8	88.1	95.1	82.6	0.97	0.91	-0.25	-0.27	6.2	6.4	186.9	170.0	166.0	151.2
Std Dv	0.6	0.8	1.0	1.5	0.70	0.59	0.17	0.20	0.4	0.9	22.7	11.9	10.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
65	91.8	88.3	95.2	81.9	1.18	1.05	-0.31	-0.31	6.8	6.8	215.5	194.1	167.8	151.2
66	-	89.4	97.4	84.2	0.37	0.33	-	-0.09	-	5.9	177.0	171.2	156.3	151.2
67	91.6	88.2	95.0	82.2	0.81	0.73	-0.22	-0.22	6.9	6.8	182.2	169.1	162.8	151.2
68	91.5	87.7	96.9	83.9	0.61	0.59	-0.14	-0.14	5.2	5.2	189.5	178.4	160.6	151.2
AVG.	91.6	88.4	96.1	83.0	0.74	0.67	-0.22	-0.19	6.3	6.2	191.0	178.2	161.9	151.2
Std Dv	0.2	0.9	1.5	1.4	0.42	0.37	0.12	0.12	1.4	1.0	21.0	13.9	5.9	0.0

TABLE NO. B.2-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 23, 1980

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPML	MEL	PWLTN	GBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
APPROACH														
34	93.2	90.1	94.5	80.6	-0.81	0.76	0.22	0.23	6.5	6.8	181.6	196.5	176.7	191.0
36	92.4	89.9	93.9	81.4	-1.16	-1.08	0.33	0.33	6.7	6.7	178.0	199.2	170.6	191.0
40	93.4	90.6	94.3	81.8	-0.66	-0.60	0.18	0.17	7.2	7.0	290.5	307.4	180.5	191.0
42	93.3	90.7	93.2	80.7	-0.80	-0.74	0.24	0.24	7.7	7.6	265.7	285.6	177.7	191.0
44	94.3	91.3	96.0	82.9	0.11	0.11	-0.05	-0.05	6.9	6.9	212.6	209.4	193.9	191.0
54	92.2	89.9	92.2	80.1	-0.32	-0.29	0.09	0.09	7.4	7.3	304.7	313.2	185.8	191.0
56	91.9	89.2	91.8	79.7	0.13	0.12	-0.05	-0.04	7.6	7.1	319.3	314.9	193.6	191.0
Avg.	92.9	90.3	93.7	81.0	-0.50	-0.46	0.14	0.14	7.2	7.1	250.4	260.9	182.7	191.0
Std Dv	0.9	0.7	1.6	1.2	0.54	0.50	0.16	0.16	0.5	0.3	64.7	61.7	9.7	0.0
TAKEOFF														
33	92.3	88.7	93.3	79.5	0.47	0.46	-0.19	-0.19	7.5	7.7	199.9	188.8	195.8	184.9
35	91.9	88.9	92.8	80.4	0.67	0.64	-0.24	-0.23	7.5	7.2	207.4	192.7	198.9	184.9
37	91.7	88.7	92.6	80.2	0.19	0.17	-0.08	-0.08	7.3	7.0	190.4	185.6	189.6	184.9
39	92.1	89.0	92.6	80.2	0.63	0.59	-0.23	-0.21	7.7	7.2	207.0	193.4	197.8	184.9
41	91.5	88.7	92.7	80.1	0.20	0.18	-0.08	-0.08	7.3	7.3	200.6	195.6	189.6	184.9
43	91.2	88.3	92.1	79.6	0.22	0.20	-0.08	-0.08	7.2	6.9	191.0	186.0	189.9	184.9
53	91.4	88.0	92.4	79.4	1.29	1.14	-0.40	-0.39	7.8	7.5	209.0	185.7	208.1	184.9
55	91.1	87.6	92.1	78.6	1.11	1.05	-0.35	-0.35	7.4	7.5	214.5	192.3	206.2	184.9
Avg.	91.6	88.5	92.6	79.8	0.60	0.55	-0.21	-0.20	7.5	7.3	202.5	190.0	197.0	184.9
Std Dv	0.5	0.5	0.4	0.6	0.45	0.41	0.13	0.13	0.2	0.3	9.3	4.3	7.9	0.0

TABLE NO. B-2-2.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

JUNE 23, 1980

SITE: 4 SIDELINE - 164 M. NORTH

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)			
	EPML	NEL	PMLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SR	CPAR
500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS														
21	87.7	85.7	88.3	76.3	0.07	0.12	-0.11	-0.11	7.4	7.5	235.9	228.2	220.1	212.9
22	89.3	86.7	91.2	77.7	0.01	0.01	-0.05	-0.05	7.1	7.7	253.9	249.8	216.5	212.9
23	85.4	83.2	84.9	72.4	-2.05	-1.95	0.59	0.59	7.5	7.4	185.9	223.1	177.4	212.9
24	87.2	84.7	88.0	74.1	-1.28	-1.24	0.35	0.39	7.2	7.9	193.5	216.6	190.2	212.9
Avg.	87.4	85.1	88.1	75.1	-0.81	-0.76	0.19	0.20	7.3	7.6	217.3	229.4	201.1	212.9
Std Dv	1.9	1.9	3.2	2.8	1.27	1.23	0.41	0.42	0.2	0.3	40.3	17.6	25.3	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS														
29	87.8	85.5	88.8	76.6	-0.33	-0.23	0.02	0.02	7.4	7.4	214.8	216.0	211.7	212.9
30	86.6	84.8	88.4	76.5	-0.92	-0.88	0.20	0.21	6.9	7.1	241.9	258.6	199.1	212.9
31	87.2	85.1	88.6	76.3	-0.20	-0.12	-0.02	-0.02	7.3	7.4	217.1	215.9	214.2	212.9
32	87.4	85.5	89.4	77.3	0.59	0.58	-0.23	-0.23	6.9	7.1	230.8	214.0	229.7	212.9
Avg.	87.2	85.2	88.8	76.7	-0.21	-0.16	-0.01	-0.01	7.1	7.2	226.2	226.1	213.7	212.9
Std Dv	0.6	0.4	0.6	0.5	0.76	0.73	0.22	0.22	0.3	0.2	15.5	26.6	15.3	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS														
49	-	84.4	90.4	78.9	-0.15	-0.12	-	0.02	-	7.1	222.6	224.1	211.5	212.9
50	87.9	85.4	90.5	78.0	-0.20	-0.21	0.05	0.05	7.0	7.2	245.4	249.2	209.7	212.9
51	87.7	85.9	89.3	78.0	-0.11	-0.12	0.02	0.02	7.1	7.0	228.9	230.6	211.4	212.9
52	87.9	85.2	90.9	77.4	0.50	0.47	-0.14	-0.16	6.5	7.4	282.7	268.7	224.0	212.9
Avg.	87.8	85.8	90.3	78.1	0.01	0.01	-0.02	-0.02	6.9	7.2	244.9	243.2	214.2	212.9
Std Dv	0.2	0.6	0.8	0.8	0.40	0.38	0.14	0.12	0.5	0.3	33.0	24.6	8.1	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
17	88.9	86.5	91.2	78.5	-1.47	-1.26	0.31	0.31	6.7	6.9	207.2	230.2	191.7	212.9
18	89.8	88.3	93.3	81.9	-0.72	-0.57	0.09	0.09	6.6	6.6	262.7	271.3	206.2	212.9
19	87.7	87.3	92.2	79.8	-0.34	-0.37	0.05	0.05	7.0	6.9	243.3	246.9	209.8	212.9
20	89.5	87.8	93.1	81.3	-0.27	-0.16	-0.02	-0.02	6.4	6.5	274.6	272.3	214.7	212.9
Avg.	89.5	87.5	92.5	80.4	-0.70	-0.59	0.11	0.11	6.7	6.7	246.9	255.2	205.6	212.9
Std Dv	0.5	1.0	1.2	1.9	0.67	0.58	0.17	0.17	0.3	0.2	36.1	25.0	12.1	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS														
25	93.9	90.3	97.7	84.2	1.44	1.34	-0.46	-0.46	6.9	6.9	281.0	240.9	248.4	212.9
26	91.4	89.0	94.4	82.1	-0.98	-0.96	0.23	0.23	6.8	6.7	228.4	247.2	196.7	212.9
27	93.6	89.4	96.3	82.5	-1.13	-1.14	0.28	0.29	6.8	6.9	232.7	256.1	193.5	212.9
28	91.6	89.3	94.4	82.6	-1.44	-1.31	0.34	0.33	7.1	6.8	237.5	265.4	190.5	212.9
Avg.	92.6	89.5	95.7	82.9	-0.53	-0.52	0.10	0.10	6.9	6.9	244.9	252.4	207.3	212.9
Std Dv	1.6	0.7	1.9	1.1	1.62	1.53	0.46	0.46	0.2	0.1	29.8	13.1	33.7	0.0

TABLE NO. E-2-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/ISC
12/18/81

CORRECTION DATA

JUNE 23, 1980															
SITE: 4 SIDELINE - 164 M. NORTH															
CORRECTED						CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)			
EV	EPNL	NEL	PNLTm	dBAM		$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS															
9	92.1	99.2	95.8	82.9		0.22	0.24	-0.13	-0.13	6.9	7.1	204.6	196.0	182.7	175.0
10	92.1	89.7	96.4	84.0		0.47	0.42	-0.17	-0.17	6.5	6.6	207.7	195.5	185.8	175.0
15	91.2	88.3	95.3	82.6		-0.22	-0.19	0.01	0.01	6.2	6.4	175.4	175.9	174.6	175.0
16	92.3	90.2	95.6	83.4		-0.55	-0.55	0.11	0.12	7.1	7.5	208.3	216.0	168.8	175.0
AVG.	91.9	89.4	95.8	83.2		-0.02	-0.02	-0.04	-0.04	6.7	6.9	199.0	195.9	178.0	175.0
Std Dv	0.6	1.0	0.6	0.8		0.56	0.53	0.16	0.16	0.5	0.6	19.4	20.1	9.5	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS															
7	88.7	86.2	89.8	77.5		0.62	0.55	-0.26	-0.25	7.6	7.5	344.4	318.5	280.9	259.8
8	87.2	85.4	89.9	77.4		-0.81	-0.83	0.14	0.14	6.9	7.3	399.0	417.6	248.2	259.8
13	88.9	86.6	90.5	78.0		0.03	0.10	-0.11	-0.11	7.3	7.4	276.8	267.7	248.6	259.8
14	87.7	85.9	89.1	77.5		-1.38	-1.33	0.37	0.36	7.6	7.5	245.9	274.9	232.4	259.8
AVG.	88.1	86.0	89.8	77.6		-0.38	-0.39	0.03	0.03	7.3	7.4	316.5	319.7	257.5	259.8
Std Dv	1.0	0.6	0.7	0.4		1.08	1.05	0.34	0.33	0.4	0.1	64.1	84.5	26.4	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS															
45	86.4	84.4	88.3	76.0		0.13	0.11	-0.06	-0.06	7.2	7.3	439.2	430.4	345.5	338.6
46	85.9	83.8	86.3	74.4		0.42	0.39	-0.15	-0.14	7.5	7.4	454.5	434.4	354.2	338.6
47	86.6	84.3	88.7	75.2		0.16	0.14	-0.06	-0.07	6.8	7.6	455.1	445.1	346.1	338.6
48	86.2	83.8	86.9	74.7		-0.21	-0.22	0.04	0.04	7.5	7.4	445.2	450.4	334.7	338.6
1										NO TRACKING DATA					
2										NO TRACKING DATA					
3										NO TRACKING DATA					
4										NO TRACKING DATA					
AVG.	86.3	84.1	87.6	75.1		0.12	0.10	-0.06	-0.06	7.2	7.4	448.5	440.1	345.1	338.6
Std Dv	0.4	0.4	1.4	0.8		0.32	0.31	0.10	0.09	0.4	0.2	9.4	11.3	9.8	0.0
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS															
5	83.1	81.3	82.1	70.8		-0.07	0.06	-0.14	-0.14	7.9	7.7	503.2	483.0	500.1	480.0
6	83.2	81.4	82.9	71.0		0.10	0.02	-0.13	-0.13	7.7	7.7	538.9	518.9	498.4	480.0
11										NO TRACKING DATA					
12	82.4	80.7	82.6	70.7		-1.04	-1.08	0.15	0.16	7.7	7.8	669.0	700.5	458.4	480.0
AVG.	82.9	81.1	82.6	70.8		-0.34	-0.33	-0.04	-0.04	7.8	7.7	570.4	567.5	485.6	480.0
Std Dv	0.7	0.6	0.6	0.2		0.87	0.91	0.23	0.24	0.2	0.1	123.4	164.9	33.4	0.0

TABLE NO. B.2-4.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 23, 1980														
SITE: 4														
SIDELINE - 1.64 M. NORTH														
CORRECTIONS (dB)														
CONSTANTS														
TRACKING DATA (METERS)														
(ACTUAL)														
(REFERENCE)														
EV	EPNL	NEL	PNLTH	dBAM	^1(P)	^1(A)	^2(P)	^2(A)	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
69	91.8	89.1	93.2	79.8	-0.43	-0.41	0.14	0.14	7.1	7.5	194.7	203.4	182.8	191.0
70	92.3	89.3	94.5	81.0	0.24	0.22	-0.06	-0.07	6.3	7.0	234.4	229.1	195.4	191.0
Avg.	92.0	89.4	93.8	80.4	-0.09	-0.09	0.04	0.03	6.7	7.2	214.6	216.3	189.1	191.0
Std Dv	0.3	0.5	0.9	0.8	0.47	0.45	0.14	0.15	0.6	0.4	28.1	18.2	8.9	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS														
61	88.4	85.9	89.0	76.6	0.89	0.78	-0.24	-0.24	7.3	7.3	236.5	219.1	229.9	212.9
62	87.4	84.9	88.7	75.7	-0.36	-0.36	0.11	0.11	7.2	7.6	256.1	265.1	205.7	212.9
63	87.7	85.4	88.4	75.9	0.84	0.76	-0.24	-0.24	7.4	7.6	301.6	279.9	229.4	212.9
64	87.3	84.8	88.9	75.3	0.18	0.16	-0.05	-0.05	7.3	7.7	257.4	253.3	216.4	212.9
Avg.	87.7	85.3	88.8	75.9	0.39	0.33	-0.10	-0.10	7.3	7.5	262.9	254.4	220.3	212.9
Std Dv	0.6	0.6	0.3	0.7	0.73	0.67	0.21	0.21	0.1	0.2	33.7	31.8	14.2	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
57	91.7	89.5	95.2	82.6	0.88	0.77	-0.21	-0.22	6.4	6.8	294.4	273.1	229.5	212.9
58	91.3	88.2	95.4	81.4	0.55	0.52	-0.13	-0.15	5.9	6.7	267.2	253.6	224.3	212.9
59	91.7	89.5	94.7	82.2	0.38	0.35	-0.11	-0.11	7.0	7.2	299.2	289.0	220.5	212.9
60	90.6	87.3	94.3	80.3	0.29	0.27	-0.07	-0.08	6.2	6.9	259.1	252.0	218.9	212.9
Avg.	91.3	88.6	94.9	81.6	0.52	0.48	-0.13	-0.14	6.4	6.9	280.0	266.9	223.3	212.9
Std Dv	0.7	1.4	0.6	1.3	0.32	0.27	0.07	0.07	0.5	0.3	24.3	21.5	5.8	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS														
65	92.6	90.3	95.3	82.9	0.22	0.20	-0.06	-0.06	7.1	7.2	244.7	240.0	217.2	212.9
66	92.0	88.2	95.1	81.6	-0.30	-0.30	0.08	0.08	6.4	6.6	242.1	249.4	206.8	212.9
67	92.8	90.2	95.4	83.0	0.10	0.08	-0.02	-0.03	6.9	7.1	244.1	242.1	214.7	212.9
68	92.3	88.9	96.1	82.4	0.46	0.43	-0.12	-0.13	6.5	6.9	264.7	253.7	222.1	212.9
Avg.	92.4	89.4	95.5	82.5	0.12	0.10	-0.03	-0.03	6.7	7.0	248.9	246.3	215.2	212.9
Std Dv	0.4	1.2	0.6	0.8	0.39	0.37	0.10	0.11	0.4	0.4	12.9	7.8	7.9	0.0

TABLE NO. B.2-1.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (NETTFS)			
	EPNL	NEL	PWLTM	QBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
SITE: 5 SIDELINE - 150 M. SOUTH JUNE 23, 1980														
APPROACH														
34	91.4	88.3	92.9	79.2	1.13	1.08	-0.35	-0.34	6.6	6.6	216.4	191.9	215.4	191.0
36	91.8	88.1	92.9	79.1	0.75	0.71	-0.25	-0.25	7.1	7.1	211.1	194.8	206.9	191.0
40	91.1	87.5	91.2	77.1	0.58	0.54	-0.21	-0.21	7.8	7.7	210.4	197.7	203.2	191.0
42	91.4	88.2	92.0	78.1	0.87	0.82	-0.30	-0.27	7.6	7.0	213.8	195.3	209.1	191.0
44	91.3	87.8	91.9	78.1	0.52	0.49	-0.18	-0.18	7.3	7.3	202.8	191.8	202.0	191.0
54	89.8	86.6	89.9	76.3	0.28	0.25	-0.09	-0.09	7.4	7.6	210.1	204.1	196.5	191.0
56	89.3	86.1	88.9	75.5	-0.10	-0.10	0.03	0.03	7.7	7.8	190.6	192.4	189.2	191.0
Avg.	90.9	87.5	91.4	77.6	0.58	0.54	-0.19	-0.19	7.3	7.3	207.9	195.4	203.2	191.0
Std Dv	1.0	0.9	1.6	1.5	0.44	0.42	0.14	0.14	0.4	0.5	9.5	4.8	9.4	0.0
TAKEOFF														
33	90.2	87.4	92.2	78.7	2.61	2.35	-0.77	-0.84	7.3	7.9	251.6	196.9	236.2	184.9
35	89.9	87.4	92.6	79.5	1.92	1.77	-0.55	-0.60	7.0	7.5	246.3	205.2	221.7	184.9
37	90.1	87.6	93.0	80.0	2.19	2.00	-0.62	-0.67	7.0	7.5	239.8	195.2	227.1	184.9
39	89.7	87.2	91.8	79.8	1.57	1.50	-0.52	-0.51	7.6	7.4	218.0	185.8	216.2	184.9
41	89.5	87.3	92.2	80.2	1.42	1.34	-0.44	-0.44	7.0	7.0	213.8	185.2	213.4	184.9
43	89.3	86.9	91.7	79.6	1.69	1.59	-0.55	-0.53	7.4	7.2	219.0	185.0	218.2	184.9
53	89.6	87.0	91.4	78.7	1.80	1.70	-0.58	-0.59	7.5	7.6	221.1	185.1	220.4	184.9
55	88.6	86.1	90.3	77.7	1.93	1.74	-0.56	-0.55	7.4	7.4	241.3	203.0	219.7	184.9
Avg.	89.6	87.1	91.9	79.3	1.89	1.75	-0.57	-0.59	7.3	7.4	231.4	192.7	221.9	184.9
Std Dv	0.5	0.5	0.9	0.9	0.40	0.34	0.10	0.13	0.3	0.3	16.1	9.2	7.6	0.0

TABLE NO. B.2-2.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

SIDELINE - 150 M. SOUTH

JUNE 23, 1980

SITE: 5

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PMLTH	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	(ACTUAL)	(REFERENCE)
500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS														
21	87.2	85.3	87.9	75.6	0.08	0.14	-0.10	-0.10	7.1	7.0	236.3	228.3	220.4	212.9
22	85.7	83.2	88.6	75.1	-0.14	-0.13	-0.02	-0.02	6.7	7.3	327.4	324.9	214.6	212.9
23	89.6	86.5	91.9	77.5	1.69	1.55	-0.50	-0.56	6.6	7.4	259.9	218.4	253.4	212.9
24	88.3	85.7	89.8	76.8	0.98	0.90	-0.37	-0.38	7.7	7.9	280.9	251.6	237.8	212.9
Avg.	87.7	85.2	89.6	76.2	0.65	0.61	-0.25	-0.26	7.0	7.4	276.1	255.8	231.5	212.9
Std Dv	2.0	1.7	2.2	1.4	1.03	0.93	0.28	0.31	0.6	0.4	47.4	58.9	21.6	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS														
29	86.9	85.2	88.1	76.1	-0.28	-0.20	0.00	0.00	7.1	7.1	215.9	216.0	212.7	212.9
30	86.2	83.8	89.2	76.6	0.87	0.83	-0.31	-0.32	7.1	7.2	240.2	217.0	235.7	212.9
31	86.9	84.9	88.2	76.3	0.13	0.17	-0.11	-0.11	6.9	7.1	224.7	216.9	220.6	212.9
32	84.4	82.2	86.3	73.9	-0.11	-0.05	-0.04	-0.04	7.2	7.2	227.4	224.2	216.0	212.9
Avg.	86.1	84.0	88.0	75.7	0.15	0.19	-0.11	-0.12	7.1	7.2	227.0	218.5	221.3	212.9
Std Dv	1.4	1.7	1.5	1.5	0.62	0.56	0.17	0.17	0.2	0.1	12.3	4.6	12.4	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS														
49	86.4	84.0	89.7	77.2	0.24	0.22	-0.08	-0.08	6.8	6.7	248.0	241.3	218.9	212.9
50	86.6	85.0	88.9	77.4	-0.67	-0.58	0.15	0.15	6.6	6.7	224.4	236.3	202.2	212.9
51	86.1	83.8	88.8	76.3	0.67	0.60	-0.20	-0.19	7.1	6.8	235.6	220.8	227.1	212.9
52	87.1	85.0	88.8	76.9	0.57	0.51	-0.18	-0.17	7.4	7.2	233.9	221.3	225.1	212.9
Avg.	86.6	84.5	89.0	77.0	0.20	0.19	-0.08	-0.07	7.0	6.9	235.5	229.9	218.3	212.9
Std Dv	0.5	0.8	0.6	0.6	0.75	0.66	0.20	0.19	0.4	0.3	11.9	12.8	13.8	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
17	91.0	88.6	93.5	80.9	1.06	1.00	-0.38	-0.38	7.2	7.2	246.8	218.7	240.3	212.9
18	88.5	86.0	92.6	80.2	-0.30	-0.22	0.00	0.00	6.6	6.4	225.2	225.2	212.9	212.9
19	90.6	88.6	92.3	80.5	0.76	0.71	-0.30	-0.30	7.5	7.3	306.4	279.1	233.7	212.9
20	87.9	85.6	92.2	79.9	0.43	0.44	-0.18	-0.18	6.5	6.3	246.4	230.7	227.4	212.9
Avg.	89.5	87.2	92.7	80.4	0.49	0.48	-0.21	-0.21	6.9	6.8	256.2	238.4	228.6	212.9
Std Dv	1.9	2.0	0.7	0.5	0.72	0.64	0.20	0.20	0.6	0.6	42.8	33.8	14.3	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS														
25	89.8	87.9	92.3	80.9	-0.73	-0.66	0.14	0.13	6.8	6.5	222.1	232.9	203.0	212.9
26	91.9	88.3	95.7	82.8	1.47	1.37	-0.49	-0.46	7.1	6.7	251.3	214.9	249.0	212.9
27	92.7	89.9	96.3	83.8	0.45	0.35	-0.17	-0.17	6.9	6.8	291.9	275.4	225.7	212.9
28	93.4	89.6	97.1	83.9	0.89	0.83	-0.31	-0.30	7.1	6.9	235.6	213.0	235.6	212.9
Avg.	91.9	88.9	95.3	82.9	0.52	0.47	-0.21	-0.20	7.0	6.7	250.3	234.1	228.3	212.9
Std Dv	1.9	1.2	2.6	1.7	1.14	1.06	0.33	0.31	0.2	0.2	37.0	35.5	23.7	0.0

TABLE NO. B.2-3.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

JUNE 23, 1980											
SITE: 5											
SIDELINE - 150 M. SOUTH											
TRACKING DATA (METERS)											
(ACTUAL) (REFERENCE)											
CONSTANTS											
CORRECTIONS (dB)											
CORRECTED											
EV											
EPNL											
NEL											
PNLTH											
dBAM											
AIRSPEED 140 KTS											
300 FT. FLYBY - TARGET INDICATED											
9											
91.0											
89.0											
93.6											
81.9											
-0.84											
-0.71											
0.16											
7.1											
6.7											
189.4											
199.9											
165.9											
175.0											
10											
88.1											
85.5											
92.4											
79.5											
-0.75											
-0.64											
0.14											
6.4											
6.5											
171.0											
179.6											
166.6											
175.0											
15											
91.4											
89.6											
94.6											
82.9											
-0.17											
-0.16											
-0.02											
6.9											
6.5											
181.7											
180.6											
176.1											
175.0											
16											
90.1											
87.0											
95.3											
81.8											
0.25											
0.26											
-0.12											
-0.13											
6.1											
6.3											
200.3											
191.3											
183.2											
175.0											
Avg.											
90.2											
87.8											
94.0											
81.5											
-0.38											
-0.30											
0.04											
0.04											
6.6											
6.5											
185.6											
187.8											
173.0											
175.0											
Std Dv											
1.8											
2.3											
1.5											
1.7											
0.63											
0.56											
0.16											
0.17											
0.5											
0.2											
15.2											
11.8											
10.2											
0.0											
700 FT. FLYBY - TARGET INDICATED											
7											
88.6											
86.3											
89.4											
76.7											
0.62											
0.61											
-0.27											
-0.28											
7.6											
7.8											
285.9											
263.1											
282.3											
259.8											
8											
87.6											
84.8											
92.1											
78.9											
2.05											
1.87											
-0.55											
-0.58											
6.4											
6.6											
341.9											
280.0											
317.2											
259.8											
13											
88.2											
86.1											
89.6											
77.0											
0.40											
0.43											
-0.21											
-0.22											
7.4											
7.6											
277.4											
259.9											
277.0											
259.8											
14											
87.4											
84.9											
91.1											
78.2											
0.22											
0.25											
-0.14											
-0.15											
6.6											
6.8											
277.2											
263.8											
273.0											
259.8											
Avg.											
88.0											
85.5											
90.6											
77.7											
0.82											
0.79											
-0.29											
-0.31											
7.0											
7.2											
295.6											
266.7											
287.5											
259.8											
Std Dv											
0.7											
1.0											
1.6											
1.3											
1.02											
0.90											
0.22											
0.23											
0.7											
0.7											
38.1											
11.1											
24.7											
0.0											
1000 FT. FLYBY - TARGET INDICATED											
45											
83.3											
81.4											
84.3											
72.4											
0.03											
0.05											
-0.05											
-0.05											
7.8											
7.6											
352.9											
346.0											
343.3											
338.6											
46											
85.1											
83.2											
86.1											
74.1											
0.18											
0.15											
-0.08											
-0.07											
7.2											
7.1											
452.9											
442.2											
346.8											
338.6											
47											
84.0											
81.6											
84.4											
72.4											
0.22											
0.21											
-0.09											
-0.09											
7.0											
7.4											
348.4											
338.6											
348.3											
338.6											
48											
85.7											
83.5											
87.1											
74.5											
0.37											
0.33											
-0.12											
-0.12											
7.0											
7.2											
488.9											
470.1											
352.1											
338.6											
1											
NO TRACKING DATA											
2											
NO TRACKING DATA											
3											
NO TRACKING DATA											
4											
NO TRACKING DATA											
Avg.											
84.6											
82.4											
85.5											
73.3											
0.20											
0.18											
-0.08											
-0.08											
7.3											
7.3											
410.8											
399.8											
347.6											
338.6											
Std Dv											
1.3											
1.4											
1.7											
1.4											
0.17											
0.14											
0.04											
0.04											
0.5											
0.2											
87.0											
81.2											
4.5											
0.0											
1500 FT. FLYBY - TARGET INDICATED											
5											
82.9											
81.1											
81.7											
69.9											
0.45											
0.36											
-0.23											
-0.24											
7.5											
7.6											
715.4											
666.0											
515.6											
480.0											
6											
80.6											
79.0											
80.9											
69.2											
-0.25											
-0.09											
-0.12											
-0.12											
7.4											
7.5											
586.7											
565.3											
498.1											
480.0											
11											
80.9											
79.1											
81.2											
69.0											
-0.70											
-0.50											
0.00											
0.00											
7.2											
7.8											
541.3											
540.7											
480.5											
480.0											
Avg.											
81.5											
79.7											
81.3											
69.4											
-0.17											
-0.08											
-0.12											
-0.12											
7.4											
7.6											
614.4											
590.7											
498.1											
480.0											
Std Dv											
1.7											
1.7											
0.6											
0.7											
0.82											
0.61											
0.16											
0.17											
0.3											
0.3											
127.7											
93.9											
24.8											
0.0											

TABLE NO. B.2-4.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 23, 1980

SITE: 5
SIDELINE - 150 M. SOUTH

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
69	90.8	87.5	90.4	76.8	0.32	0.29	-0.10	-0.10	7.7	7.8	214.0	207.6	196.8	191.0
70	89.6	86.7	89.7	75.6	-0.28	-0.28	0.09	0.10	7.3	8.0	229.6	236.1	185.7	191.0
Avg.	90.2	87.1	90.1	76.2	0.02	0.01	-0.01	0.00	7.5	7.9	221.8	221.9	191.3	191.0
Std Dv	0.8	0.6	0.5	0.8	0.42	0.40	0.13	0.14	0.3	0.2	11.1	20.2	7.9	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS														
61	86.0	83.7	88.4	75.6	0.45	0.39	-0.11	-0.11	6.4	6.7	237.9	229.0	221.1	212.9
62	87.9	85.7	88.2	75.9	0.23	0.19	-0.06	-0.06	7.8	7.9	225.0	220.8	217.0	212.9
63	86.6	84.1	88.4	75.5	1.46	1.29	-0.40	-0.41	7.5	7.7	253.3	224.1	240.7	212.9
64	88.3	86.1	88.5	75.7	0.40	0.37	-0.12	-0.12	7.5	7.5	223.9	215.8	220.9	212.9
Avg.	87.2	84.9	88.4	75.7	0.63	0.56	-0.17	-0.17	7.3	7.4	235.0	222.4	225.0	212.9
Std Dv	1.4	1.4	0.2	0.2	0.68	0.61	0.19	0.19	0.8	0.6	16.9	6.8	13.1	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
57	89.1	86.6	92.4	79.9	1.15	1.03	-0.30	-0.31	6.9	7.0	242.2	218.9	235.6	212.9
58	90.8	88.8	93.0	80.2	0.24	0.21	-0.07	-0.08	7.3	7.8	228.1	223.2	217.7	212.9
59	89.2	86.6	92.9	80.4	0.42	0.37	-0.11	-0.11	6.9	6.9	252.8	243.7	220.9	212.9
60	91.6	89.5	93.6	81.4	0.93	0.82	-0.25	-0.26	7.2	7.3	238.5	219.9	230.9	212.9
Avg.	90.2	87.9	93.0	80.5	0.68	0.61	-0.18	-0.19	7.1	7.3	240.4	226.4	226.3	212.9
Std Dv	1.5	1.8	0.6	0.8	0.52	0.47	0.13	0.14	0.3	0.5	12.5	14.3	10.3	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS														
65	90.6	87.6	94.4	81.9	0.84	0.74	-0.20	-0.20	6.4	6.6	262.5	244.6	228.5	212.9
66	93.0	90.6	96.2	82.9	0.71	0.67	-0.19	-0.21	6.9	7.7	320.1	300.3	226.9	212.9
67	90.6	87.6	94.1	81.5	0.51	0.44	-0.12	-0.12	6.6	6.6	256.5	245.7	222.3	212.9
68	91.7	89.2	95.1	82.2	0.34	0.29	-0.08	-0.09	6.6	7.1	294.4	286.1	219.1	212.9
Avg.	91.5	88.7	94.9	82.1	0.60	0.53	-0.15	-0.15	6.6	7.0	283.3	269.2	224.2	212.9
Std Dv	1.4	1.7	1.1	0.7	0.27	0.25	0.07	0.07	0.3	0.7	36.2	34.7	5.3	0.0

TABLE NO. B.2-1.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

SITE: 5G				SIDELINE - 150 M. SOUTH (FLUSH)				JUNE 23, 1980						
CORRECTED				CORRECTIONS (dB)				TRACKING DATA (METERS)						
				CONSTANTS				(ACTUAL)						
EV	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
34	94.9	92.1	97.0	84.2	1.12	1.07	-0.35	-0.36	6.8	6.8	219.1	194.4	216.1	191.7
36	93.5	90.2	94.8	81.6	0.75	0.70	-0.25	-0.25	7.3	7.2	207.8	191.9	207.6	191.7
40	95.4	92.0	95.9	82.4	0.56	0.53	-0.20	-0.20	7.5	7.6	207.6	195.3	203.9	191.7
42	95.6	92.4	96.9	83.2	0.86	0.82	-0.28	-0.29	7.1	7.4	214.6	196.1	209.8	191.7
44	95.0	92.1	96.1	83.3	0.51	0.49	-0.18	-0.17	7.3	7.1	202.8	191.8	202.7	191.7
54	94.3	91.4	94.2	81.2	0.27	0.25	-0.09	-0.09	7.4	7.5	205.4	199.6	197.3	191.7
56	93.9	90.6	94.1	80.7	-0.12	-0.11	0.03	0.03	7.3	7.4	191.3	193.1	189.9	191.7
Avg.	94.7	91.5	95.6	82.4	0.56	0.54	-0.19	-0.19	7.2	7.3	206.9	194.6	203.9	191.7
Std Dv	0.9	0.9	1.3	1.4	0.44	0.42	0.14	0.14	0.3	0.3	9.7	3.0	9.3	0.0
TAKEOFF														
33	95.5	92.6	97.4	84.0	2.56	2.37	-0.79	-0.84	7.5	7.9	260.0	203.6	236.9	185.6
35	95.7	92.9	98.0	85.7	1.88	1.77	-0.58	-0.58	7.4	7.3	247.1	206.0	222.6	185.6
37	95.9	93.2	98.2	85.8	2.15	2.01	-0.66	-0.65	7.4	7.3	240.5	195.9	227.9	185.6
39	95.6	93.2	97.6	86.4	1.64	1.53	-0.53	-0.48	7.6	6.9	231.2	197.1	217.7	185.6
41	95.4	93.1	98.0	86.6	1.47	1.38	-0.46	-0.43	7.4	6.9	227.7	197.3	214.2	185.6
43	95.3	92.7	97.6	86.0	1.77	1.64	-0.56	-0.52	7.6	7.1	233.1	196.9	219.7	185.6
53	95.6	92.5	97.8	84.3	1.93	1.77	-0.57	-0.61	7.4	7.9	228.7	191.4	221.7	185.6
55	94.2	91.5	96.7	83.7	1.91	1.77	-0.53	-0.55	7.0	7.4	241.9	203.6	220.6	185.6
Avg.	95.4	92.7	97.7	85.3	1.91	1.78	-0.58	-0.58	7.4	7.3	238.8	199.0	222.6	185.6
Std Dv	0.6	0.6	0.5	1.2	0.36	0.33	0.11	0.14	0.2	0.4	11.9	5.3	7.6	0.0

TABLE NO. B-2-2.56

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

SITE: 56				SIDELINE - 150 M. SOUTH (FLUSH)				JUNE 23, 1980						
CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)			
EV	EPNL	NEL	PNLTM	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS														
21	91.9	89.4	92.3	80.0	0.12	0.12	-0.12	-0.11	7.8	7.6	237.1	229.1	221.2	213.8
22	90.1	88.0	92.0	79.8	-0.17	-0.17	-0.02	-0.03	7.4	7.5	328.0	325.4	215.5	213.8
23	93.8	90.8	95.9	82.3	1.65	1.54	-0.54	-0.58	7.3	7.7	265.7	223.5	254.2	213.8
24	92.5	90.2	94.2	81.9	0.94	0.89	-0.36	-0.36	7.7	7.7	281.6	252.4	238.5	213.8
AVG.	92.1	89.6	93.6	81.0	0.63	0.59	-0.26	-0.27	7.5	7.6	278.1	257.6	232.4	213.8
Std Dev	1.9	1.5	2.2	1.6	1.01	0.95	0.29	0.31	0.3	0.1	46.5	57.4	21.5	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS														
29	91.7	89.3	93.5	81.0	-0.29	-0.21	0.00	0.00	7.3	7.4	216.7	216.9	213.6	213.8
30	91.0	88.8	94.3	82.0	0.84	0.82	-0.30	-0.31	6.9	7.1	241.0	217.9	236.5	213.8
31	91.7	89.3	93.7	81.0	0.12	0.16	-0.11	-0.11	7.0	7.3	225.6	217.7	221.5	213.8
32	89.2	87.4	91.2	79.5	-0.15	-0.07	-0.05	-0.05	7.2	7.2	256.2	252.6	216.9	213.8
AVG.	90.9	88.7	93.2	80.9	0.13	0.18	-0.11	-0.12	7.1	7.2	234.9	226.3	222.1	213.8
Std Dev	1.4	1.1	1.7	1.3	0.62	0.56	0.16	0.17	0.2	0.2	21.3	21.5	12.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS														
49	91.9	89.9	95.7	83.4	0.23	0.22	-0.08	-0.08	6.4	6.6	248.8	242.1	219.7	213.8
50	92.9	90.4	95.6	82.9	-0.63	-0.57	0.15	0.15	6.9	6.8	225.2	237.1	203.1	213.8
51	91.6	89.4	95.0	82.8	0.65	0.60	-0.18	-0.19	6.5	6.6	228.0	213.9	228.0	213.8
52	93.0	90.2	95.3	82.3	0.57	0.52	-0.17	-0.18	7.2	7.4	261.8	247.7	226.0	213.8
AVG.	92.3	90.0	95.4	82.8	0.20	0.19	-0.07	-0.07	6.8	6.9	241.0	235.2	219.2	213.8
Std Dev	0.9	0.6	0.4	0.6	0.72	0.67	0.19	0.19	0.5	0.4	21.4	18.2	13.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
17	95.7	92.9	98.2	85.5	1.03	0.99	-0.38	-0.38	7.3	7.2	241.6	214.3	241.1	213.8
18	93.4	91.0	97.6	85.4	-0.33	-0.24	0.00	0.00	6.5	6.4	245.4	245.4	213.8	213.8
19	95.2	92.7	97.4	85.2	0.74	0.71	-0.30	-0.28	7.3	7.0	250.9	228.7	234.6	213.8
20	92.9	90.6	97.2	85.0	0.44	0.44	-0.18	-0.18	6.3	6.4	247.2	231.5	228.3	213.8
AVG.	94.3	91.8	97.6	85.3	0.47	0.47	-0.21	-0.21	6.9	6.8	246.3	230.0	229.4	213.8
Std Dev	1.7	1.5	0.5	0.3	0.72	0.65	0.20	0.20	0.6	0.5	4.8	15.7	14.3	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
25	94.8	92.4	97.4	85.8	-0.78	-0.73	0.14	0.13	7.1	6.5	242.5	254.1	204.0	213.8
26	96.1	92.9	100.3	88.1	1.45	1.36	-0.45	-0.44	6.7	6.5	262.8	224.9	249.8	213.8
27	97.3	94.5	100.9	88.5	0.34	0.36	-0.18	-0.17	7.1	6.9	245.6	231.9	225.5	213.8
28	97.3	94.3	101.6	89.1	0.82	0.80	-0.30	-0.28	6.9	6.5	258.8	234.1	236.4	213.8
AVG.	96.4	93.5	100.1	87.9	0.46	0.45	-0.20	-0.19	6.9	6.6	252.4	236.3	229.2	213.8
Std Dev	1.5	1.2	2.3	1.8	1.15	1.08	0.31	0.29	0.2	0.2	12.1	15.4	23.6	0.0

TABLE NO. B.2-3-56

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	(ACTUAL)	(REFERENCE)
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
9													NO TRACKING DATA	
10	96.2	93.5	99.8	87.2	-0.14	-0.12	-0.02	-0.02	6.9	6.7			177.0	175.9
15	95.0	92.1	99.7	87.3	0.23	0.25	-0.13	-0.13	6.6	6.4			200.9	191.9
16													183.9	175.6
Avg.	95.6	92.8	99.8	87.3	0.05	0.06	-0.07	-0.07	6.8	6.6			188.9	183.9
Std Dev	0.8	1.0	0.1	0.0	0.26	0.26	0.08	0.08	0.2	0.2			16.9	11.3
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
7	92.4	90.1	93.7	81.3	0.61	0.58	-0.28	-0.27	7.6	7.5			330.6	304.3
8	91.8	89.4	95.6	83.3	2.00	1.84	-0.60	-0.59	6.9	6.9			363.6	298.1
13	92.6	90.3	94.1	81.9	0.39	0.42	-0.21	-0.21	7.4	7.3			286.4	268.3
14	92.2	89.8	95.9	83.5	0.17	0.21	-0.14	-0.14	6.8	6.8			335.4	319.4
Avg.	92.3	89.9	94.8	82.5	0.79	0.76	-0.31	-0.30	7.2	7.1			329.0	297.5
Std Dev	0.4	0.5	1.3	1.3	1.01	0.90	0.25	0.24	0.5	0.4			39.1	26.2
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
45	88.4	86.6	89.9	78.5	0.01	0.04	-0.04	-0.04	7.4	7.4			366.0	361.0
46	90.0	88.1	91.4	79.3	0.15	0.15	-0.08	-0.07	7.2	7.2			406.8	397.2
47	88.6	86.8	89.5	77.9	0.21	0.21	-0.09	-0.09	7.4	7.5			385.5	374.8
48	90.4	88.4	92.3	79.9	0.35	0.33	-0.12	-0.12	6.9	7.0			435.9	419.2
1													NO TRACKING DATA	
2													NO TRACKING DATA	
3													NO TRACKING DATA	
4													NO TRACKING DATA	
Avg.	89.3	87.5	90.8	78.9	0.18	0.18	-0.08	-0.08	7.2	7.2			398.6	388.0
Std Dev	1.2	1.1	1.6	1.1	0.17	0.15	0.04	0.04	0.3	0.3			36.7	31.3
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
5	86.4	84.9	85.8	74.5	0.31	0.38	-0.24	-0.24	7.7	7.7			545.1	507.6
6	84.9	83.7	85.4	74.5	-0.18	-0.05	-0.12	-0.12	7.6	7.3			515.6	496.8
11													NO TRACKING DATA	
12	84.7	83.3	84.9	73.7	-0.81	-0.56	0.00	0.00	7.7	7.7			620.1	619.5
Avg.	85.4	84.0	85.4	74.2	-0.23	-0.08	-0.12	-0.12	7.7	7.6			560.2	541.3
Std Dev	1.3	1.2	0.6	0.6	0.79	0.67	0.17	0.17	0.1	0.3			76.2	96.0
													481.6	481.2
													499.2	481.2
													24.8	0.0

JUNE 23, 1980

TABLE NO. B.2-4.56

SIKORSKY S-76 SPIRIT HELICOPTER

CORRECTION DATA - MAIN ROTOR RPM 1072

DOT/TSC
12/19/81

JUNE 23, 1980

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PWLTH	dBAM	$\Delta 1(P) / \Delta 1(A)$	$\Delta 2(P) / \Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR		
APPROACH														
69	94.5	91.2	95.0	81.6	0.34	-0.09	-0.09	7.1	7.1	199.3	193.4	197.5	191.7	
70	93.9	90.7	93.3	79.8	-0.30	-0.28	0.09	0.10	7.7	7.9	186.8	192.1	186.5	191.7
Avg.	94.2	91.0	94.2	80.7	0.02	0.01	0.00	0.01	7.4	7.5	193.1	192.7	192.0	191.7
Std Dev	0.4	0.4	1.2	1.3	0.45	0.41	0.13	0.13	0.4	0.6	8.8	1.0	7.8	0.0
500 FT. FLYOVER - TARGET INDICATED 93 KTS														
61	92.0	89.3	94.6	81.7	0.45	0.40	-0.11	-0.11	6.4	6.6	238.9	230.0	222.1	213.8
62	93.6	90.5	94.5	81.2	0.22	0.19	-0.06	-0.06	7.6	7.6	225.8	221.6	217.9	213.8
63	92.1	88.4	93.7	80.8	1.45	1.29	-0.41	-0.42	7.7	7.8	254.2	224.9	241.6	213.8
64	93.4	90.3	94.2	80.8	0.45	0.39	-0.12	-0.12	7.5	7.5	269.6	259.8	221.8	213.8
Avg.	92.8	89.9	94.3	81.1	0.64	0.57	-0.17	-0.18	7.3	7.4	247.1	234.1	225.8	213.8
Std Dev	1.0	0.8	0.5	0.5	0.67	0.60	0.19	0.20	0.7	0.7	23.2	21.4	13.1	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
57	95.1	92.2	98.7	85.8	1.16	1.04	-0.30	-0.30	6.8	6.9	256.6	231.9	236.6	213.8
58	-	93.0	98.7	85.1	0.25	0.22	-	-0.07	-	7.3	261.9	236.1	218.6	213.8
59	94.6	91.8	98.1	85.4	0.42	0.37	-0.11	-0.11	6.9	7.0	253.6	244.5	221.8	213.8
60	96.9	93.7	99.8	86.4	0.93	0.84	-0.25	-0.24	7.0	6.9	251.9	232.3	231.8	213.8
Avg.	95.5	92.7	98.8	85.7	0.69	0.62	-0.22	-0.18	6.9	7.0	256.0	241.2	227.2	213.8
Std Dev	1.8	1.0	0.8	0.7	0.52	0.47	0.14	0.13	0.1	0.2	5.4	14.1	10.3	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
65	95.7	92.6	100.0	87.4	0.82	0.73	-0.19	-0.20	6.4	6.4	243.3	226.8	229.4	213.8
66	-	95.3	102.2	88.6	0.77	0.71	-	-0.19	-	6.9	321.2	301.5	227.8	213.8
67	-	93.0	100.4	87.5	0.50	0.45	-	-0.12	-	6.6	257.6	246.9	223.1	213.8
68	97.6	93.9	100.5	87.1	0.33	0.31	-0.09	-0.09	7.4	6.9	295.0	286.8	220.0	213.8
Avg.	96.6	93.7	100.8	87.6	0.60	0.55	-0.14	-0.15	6.9	6.7	279.3	265.5	225.0	213.8
Std Dev	1.3	1.5	1.2	0.8	0.28	0.25	0.07	0.07	0.7	0.3	43.4	42.4	5.3	0.0

SIKORSKY S-76 SPIRIT HELICOPTER

DOI-79C
12/19/81

CORRECTION DATA

9 :31TS

SIDELINE - 284 M. NORTH

JUNE 23, 1980

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EU	EPNL	NEL	PWLTH	dBAN	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
34	86.6	84.7	86.0	73.8	-0.84	-0.76	0.22	0.22	7.3	7.4	310.2	332.7	286.7	307.4
36	87.1	85.0	88.5	75.7	-0.94	-0.86	0.21	0.21	6.0	6.2	311.6	337.6	283.8	307.4
40	87.1	84.8	87.6	76.1	-0.60	-0.54	0.12	0.11	6.5	6.1	459.3	479.6	294.4	307.4
42	82.6	80.7	82.9	71.6	-0.77	-0.68	0.18	0.17	7.0	6.6	438.4	464.6	290.1	307.4
44	88.6	86.4	88.3	76.8	-0.45	-0.41	0.11	0.11	7.6	7.1	323.7	335.1	297.0	307.4
54	86.4	84.3	86.9	75.0	-0.26	-0.24	0.06	0.06	6.9	6.7	349.4	356.8	301.0	307.4
56	87.1	85.1	86.6	75.0	0.23	0.22	-0.07	-0.07	7.1	6.9	515.6	503.8	314.6	307.4
AVG.														
Std Dev	86.5	84.4	86.7	74.9	-0.52	-0.47	0.12	0.12	6.9	6.7	386.9	401.4	295.4	307.4
	2.0	1.9	2.1	1.9	0.44	0.40	0.11	0.11	0.6	0.5	91.0	84.6	11.3	0.0
TAKEOFF														
33	-	84.0	86.5	73.7	-0.51	-0.43	-	0.08	-	7.9	309.1	316.4	296.7	303.7
35	88.0	85.5	87.4	75.6	-0.10	-0.08	-0.01	-0.01	7.8	7.3	322.2	320.8	305.0	303.7
37	-	84.6	87.0	74.8	-0.50	-0.47	-	0.09	-	7.2	371.4	382.8	294.7	303.7
39	87.8	85.1	86.7	74.4	-0.08	-0.05	-0.02	-0.02	8.1	7.7	305.9	303.8	305.8	303.7
41	87.6	84.9	87.4	73.8	-0.34	-0.27	0.05	0.05	7.6	8.2	303.0	307.2	299.4	303.7
43	87.2	84.5	87.0	73.9	-0.32	-0.33	0.07	0.07	7.6	7.6	303.9	310.3	297.4	303.7
53	87.9	85.2	88.2	73.9	0.33	0.30	-0.11	-0.11	7.4	7.7	336.1	324.9	314.1	303.7
55	87.3	84.4	87.1	73.0	0.28	0.25	-0.09	-0.10	7.4	8.2	322.7	313.7	312.3	303.7
AVG.														
Std Dev	87.6	84.8	87.2	74.1	-0.15	-0.13	-0.02	0.01	7.7	7.7	321.8	322.5	303.2	303.7
	0.4	0.5	0.5	0.9	0.35	0.32	0.08	0.09	0.3	0.4	25.0	27.3	7.9	0.0

TABLE NO. B.2-2.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOI/TSC
12/19/81

CORRECTION DATA

SITE: 6				SIDELINE - 284 N. NORTH				JUNE 23, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	NEL	PMLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS														
21	83.6	82.1	82.2	70.5	-0.29	-0.15	-0.05	-0.05	7.9	8.0	353.8	348.7	326.3	321.5
22	84.1	82.1	84.0	71.6	-0.15	-0.17	-0.03	-0.03	7.7	7.6	329.3	326.6	324.1	321.5
23	80.7	79.4	79.6	68.3	-2.20	-1.92	0.52	0.51	7.4	7.3	279.3	328.1	273.7	321.5
24	82.0	79.9	81.1	68.8	-1.36	-1.29	0.33	0.33	7.7	7.8	329.7	364.0	291.3	321.5
Avg.	82.6	80.9	81.7	69.8	-1.00	-0.88	0.19	0.19	7.7	7.7	323.0	341.8	303.8	321.5
Std Dv	1.9	1.8	2.3	1.9	1.18	1.07	0.34	0.34	0.3	0.3	38.4	21.9	31.5	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS														
29	83.3	81.3	83.3	71.3	-0.29	-0.29	0.01	0.01	7.6	7.6	320.5	321.6	320.4	321.5
30	83.4	81.6	83.8	71.8	-0.96	-0.91	0.21	0.21	7.4	7.5	301.7	322.3	301.0	321.5
31	82.8	81.0	82.9	71.2	-0.30	-0.29	0.01	0.01	7.3	7.4	324.0	325.1	320.4	321.5
32	84.6	82.6	84.5	73.2	0.24	0.22	-0.16	-0.15	7.7	7.4	359.5	343.4	336.7	321.5
Avg.	83.5	81.6	83.6	71.9	-0.33	-0.32	0.02	0.02	7.5	7.5	326.4	328.1	319.6	321.5
Std Dv	0.9	0.9	0.8	1.1	0.60	0.57	0.19	0.18	0.2	0.1	29.6	12.6	17.9	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS														
49	86.1	84.5	88.1	76.2	-0.24	-0.19	0.03	0.03	7.1	7.2	330.7	334.0	318.4	321.5
50	84.7	82.6	86.3	74.0	-0.10	-0.07	0.00	0.00	7.1	7.1	322.1	322.0	321.6	321.5
51	86.7	84.9	87.5	75.6	-0.27	-0.26	0.06	0.06	7.3	7.3	323.0	329.1	315.6	321.5
52	84.5	82.6	85.3	73.7	0.17	0.17	-0.07	-0.07	7.4	7.3	365.7	357.7	328.7	321.5
Avg.	85.5	83.7	86.8	74.9	-0.11	-0.09	0.00	0.00	7.2	7.2	335.4	335.7	321.0	321.5
Std Dv	1.3	1.5	1.5	1.5	0.25	0.23	0.07	0.07	0.2	0.1	25.2	19.0	6.9	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
17	84.6	82.4	84.8	72.9	-1.31	-1.24	0.32	0.31	7.6	7.4	293.7	323.3	292.1	321.5
18	87.4	85.7	89.4	78.4	-0.54	-0.56	0.06	0.06	6.9	6.6	395.3	403.4	315.0	321.5
19	85.6	83.7	86.9	75.0	-0.81	-0.62	0.09	0.10	7.1	7.2	328.9	339.1	311.9	321.5
20	86.6	85.2	89.3	78.0	-0.50	-0.43	0.03	0.03	6.5	6.5	370.0	373.5	318.5	321.5
Avg.	86.0	84.2	87.6	76.1	-0.79	-0.71	0.12	0.12	7.0	6.9	347.0	359.8	309.4	321.5
Std Dv	1.5	1.8	2.7	3.2	0.46	0.44	0.16	0.16	0.5	0.6	54.9	43.9	14.5	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS														
25	88.7	85.9	90.7	78.1	0.56	0.55	-0.24	-0.25	7.1	7.3	348.6	322.3	347.8	321.5
26	87.8	85.6	90.0	77.7	-1.20	-1.14	0.28	0.27	7.1	6.9	297.0	325.0	293.9	321.5
27	89.1	85.6	90.9	77.5	-1.06	-1.04	0.23	0.22	7.2	7.1	335.8	361.0	299.1	321.5
28	88.3	86.3	90.6	78.8	-1.26	-1.19	0.30	0.28	7.3	6.9	300.7	330.2	292.9	321.5
Avg.	88.5	85.8	90.6	78.0	-0.74	-0.70	0.14	0.13	7.2	7.0	320.5	334.6	308.4	321.5
Std Dv	0.7	0.4	0.5	0.7	1.07	1.03	0.31	0.31	0.1	0.2	31.4	21.9	32.3	0.0

TABLE NO. B.2-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

JUNE 23, 1960															
SITE: 6 SIDELINE - 284 M. NORTH															
TRACKING DATA (METERS)															
(ACTUAL)															
CONSTANTS															
CORRECTIONS (dB)															
CORRECTED															
EV	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
9	87.2	85.3	88.8	76.8	0.09	0.05	-0.10	-0.09	7.6	7.4	310.2	301.3	306.6	297.8	
10	88.0	86.4	90.5	80.0	0.04	0.03	-0.11	-0.10	6.9	6.3	438.1	421.9	309.1	297.8	
15	86.3	84.1	87.9	76.2	-0.27	-0.28	0.01	0.01	7.1	6.9	297.3	298.0	297.0	297.8	
16	87.2	85.5	90.5	78.7	-0.59	-0.56	0.07	0.07	6.4	6.4	327.5	336.0	290.2	297.8	
Avg.	87.2	85.3	89.4	77.9	-0.18	-0.19	-0.03	-0.03	7.0	6.7	343.3	339.3	300.8	297.8	
Std Dv	0.9	1.1	1.6	2.1	0.39	0.35	0.11	0.10	0.6	0.6	78.9	70.7	10.7	0.0	
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
7	84.0	83.9	86.5	74.1	0.03	0.11	-0.14	-0.14	7.6	7.8	410.5	393.6	369.6	354.3	
8	84.2	82.8	85.3	73.6	-1.53	-1.48	0.33	0.33	7.3	7.3	420.1	465.6	319.7	354.3	
13	86.2	84.0	87.0	74.8	-0.18	-0.22	-0.03	-0.03	7.6	7.5	401.6	397.7	357.8	354.3	
14	-	83.6	85.5	74.9	-1.38	-1.29	-	0.33	-	7.6	325.3	359.4	320.7	354.3	
Avg.	85.5	83.6	86.1	74.4	-0.76	-0.72	0.05	0.12	7.5	7.6	389.4	404.0	342.0	354.3	
Std Dv	1.6	0.7	1.0	0.7	0.98	0.96	0.35	0.30	0.2	0.2	53.1	54.5	31.3	0.0	
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
45	84.5	82.8	85.2	74.0	0.04	0.04	-0.05	-0.04	7.5	7.2	505.9	498.8	421.4	415.6	
46	84.9	82.7	86.2	73.0	0.32	0.29	-0.11	-0.12	7.0	7.4	482.5	465.1	431.1	415.6	
47	85.4	83.8	86.1	74.3	0.03	0.02	-0.04	-0.04	7.5	7.6	582.6	575.1	420.9	415.6	
48	84.7	82.2	86.4	72.4	-0.37	-0.37	0.07	0.08	6.8	7.5	485.0	496.6	405.9	415.6	
1											NO TRACKING DATA				
2											NO TRACKING DATA				
3											NO TRACKING DATA				
4											NO TRACKING DATA				
Avg.	84.9	82.9	86.0	73.4	0.00	-0.01	-0.03	-0.03	7.2	7.4	514.0	508.9	419.8	415.6	
Std Dv	0.5	0.9	0.7	1.1	0.35	0.33	0.09	0.10	0.4	0.2	57.4	57.3	12.8	0.0	
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
5	81.9	80.1	80.9	69.2	-0.25	-0.27	-0.04	-0.04	7.9	7.5	674.1	665.4	544.0	537.1	
6	82.3	80.8	82.9	71.6	-0.25	-0.16	-0.10	-0.09	7.2	7.1	655.7	636.0	553.7	537.1	
11											NO TRACKING DATA				
12	81.3	79.8	81.5	68.9	-1.34	-1.29	0.18	0.19	7.6	8.3	864.9	913.0	508.8	537.1	
Avg.	81.9	80.2	81.8	69.9	-0.61	-0.57	0.01	0.02	7.6	7.6	731.5	738.1	535.5	537.1	
Std Dv	0.7	0.7	1.4	2.1	0.89	0.88	0.21	0.21	0.4	0.8	163.9	215.2	33.4	0.0	

TABLE NO. B-2-4.6

SIKORSKY S-76 SPIRIT HELICOPTER

CORRECTION DATA - MAIN ROTOR RPM 107Z

DOT/ISC
12/29/81

JUNE 23, 1980												
SITE: 6					SIDELINE - 284 M. NORTH				TRACKING DATA (METERS) (ACTUAL)			
CORRECTED					CORRECTIONS (dB)				CONSTANTS			
EV	EPNL	NEL	PNLTH	dBdM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CFA	SRR	CPAR
APPROACH												
69	87.5	85.4	88.1	76.7	-0.34	-0.31	0.09	0.08	7.0	6.5	298.4	307.4
70	87.1	85.3	89.6	77.2	0.19	0.17	-0.04	-0.04	5.4	5.8	312.7	307.4
Avg.	87.3	85.3	88.9	77.0	-0.07	-0.07	0.02	0.02	6.2	6.1	305.6	307.4
Std Dev	0.3	0.1	1.1	0.3	0.37	0.34	0.09	0.08	1.1	0.5	10.1	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS												
61	85.7	83.9	85.9	73.6	0.51	0.49	-0.14	-0.14	7.7	7.3	335.6	321.5
62	83.6	81.7	82.8	70.9	-0.30	-0.28	0.08	0.08	7.1	7.0	313.4	321.5
63	84.6	82.9	84.4	72.2	0.27	0.26	-0.08	-0.08	7.7	7.9	329.0	321.5
64	83.2	81.2	82.0	70.2	0.03	0.02	-0.01	-0.01	7.9	7.7	322.3	321.5
Avg.	84.3	82.4	83.5	71.7	0.13	0.12	-0.04	-0.04	7.6	7.5	325.1	321.5
Std Dev	1.4	1.5	1.7	1.8	0.42	0.40	0.12	0.12	0.4	0.5	11.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS												
57	88.4	86.6	89.5	77.3	0.30	0.28	-0.09	-0.10	7.4	7.8	330.8	321.5
58	87.4	84.8	89.1	76.7	0.36	0.31	-0.09	-0.09	7.1	7.0	331.1	321.5
59	88.9	87.0	90.6	78.8	0.16	0.14	-0.04	-0.05	6.9	7.4	326.3	321.5
60	86.8	84.1	87.7	75.4	0.00	0.00	0.00	0.00	7.7	7.2	321.7	321.5
Avg.	87.9	85.6	89.2	77.0	0.20	0.18	-0.05	-0.06	7.3	7.4	327.5	321.5
Std Dev	1.2	1.7	1.5	1.8	0.20	0.17	0.05	0.05	0.4	0.4	5.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS												
65	90.8	88.5	93.5	80.8	0.02	-0.03	0.01	0.01	6.6	7.1	320.7	321.5
66	89.1	85.6	90.5	78.3	-0.35	-0.35	0.10	0.09	6.9	6.6	311.3	321.5
67	90.7	88.1	92.4	79.9	-0.04	-0.04	0.01	0.01	6.9	7.3	320.3	321.5
68	-	86.2	91.4	78.6	0.27	0.23	-	-0.07	-	7.1	328.6	321.5
Avg.	90.2	87.1	91.9	79.4	-0.03	-0.05	0.04	0.01	6.8	7.0	320.2	321.5
Std Dev	1.4	1.7	1.6	1.4	0.31	0.29	0.07	0.08	0.2	0.4	8.7	0.0

DOT/TSC
12/19/81

TABLE NO. B.3-1.1
AUGUSTA A-109 HELICOPTER (ITALIAN)

SITE: 1				CORRECTION DATA				JUNE 24, 1980			
CENTERLINE - CENTER				CONSTANTS				TRACKING DATA (METERS)			
CORRECTIONS (dB)				K(P) K(A)				(ACTUAL)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			
CORRECTIONS (dB)				K(P) K(A)				(REFERENCE)			

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-2.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

BOI/TSC
12/19/81

CORRECTION DATA															
SITE: 1															
CENTERLINE - CENTER															
CORRECTIONS (dB)															
CORRECTED															
EV	EPNL	NEL	PMLTM	dBAM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	CONSTANTS		TRACKING DATA (METERS)				
									K(P)	K(A)	SR	CPA	SRR	CPAR	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS															
21	89.7	86.3	92.7	77.8	0.50	0.48	-0.16	-0.19	6.2	7.1	583.6	548.9	160.7	151.2	
22	89.5	86.4	92.9	78.2	0.57	0.56	-0.16	-0.18	5.6	6.3	181.7	170.2	161.4	151.2	
46	89.3	85.9	92.8	78.5	0.41	0.39	-0.11	-0.12	5.9	6.5	175.8	168.3	157.9	151.2	
47	89.6	86.6	92.6	77.5	1.24	1.18	-0.35	-0.40	6.5	7.4	185.5	163.7	171.3	151.2	
Avg.	89.5	86.3	92.8	78.0	0.68	0.65	-0.19	-0.22	6.0	6.8	281.6	262.8	162.8	151.2	
Std Dv	0.2	0.3	0.2	0.5	0.46	0.44	0.13	0.15	0.5	0.6	246.6	233.7	7.2	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS															
51	90.4	87.1	93.4	79.3	1.60	1.49	-0.47	-0.49	6.7	7.0	198.1	168.7	177.5	151.2	
52	90.3	87.1	92.6	78.6	0.33	0.31	-0.10	-0.10	7.0	6.9	170.9	165.1	156.5	151.2	
53	90.2	86.9	93.1	79.0	1.45	1.35	-0.42	-0.45	6.6	7.2	197.5	170.8	174.9	151.2	
56	90.7	87.6	93.2	78.7	0.35	0.33	-0.10	-0.10	6.5	6.6	182.4	175.9	156.8	151.2	
Avg.	90.4	87.2	93.1	78.9	0.93	0.87	-0.27	-0.28	6.7	6.9	187.2	170.1	166.4	151.2	
Std Dv	0.3	0.4	0.4	0.4	0.84	0.78	0.25	0.26	0.2	0.3	16.0	5.5	13.9	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS															
54	91.7	88.3	93.9	79.7	0.36	0.34	-0.11	-0.12	6.9	7.5	177.7	171.3	156.9	151.2	
55	91.7	88.6	93.4	79.7	0.73	0.69	-0.22	-0.23	6.7	7.0	189.4	175.8	162.9	151.2	
57	91.1	87.9	92.6	79.0	1.23	1.16	-0.40	-0.40	7.5	7.5	200.6	177.4	170.9	151.2	
58	90.7	87.4	92.9	78.5	0.35	0.33	-0.11	-0.12	6.8	7.4	187.2	180.6	156.7	151.2	
Avg.	91.3	88.0	93.2	79.2	0.67	0.63	-0.21	-0.22	7.0	7.3	188.7	176.3	161.8	151.2	
Std Dv	0.6	0.6	0.7	0.8	0.51	0.48	0.17	0.16	0.5	0.3	11.5	4.7	8.2	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS															
17	92.6	89.3	95.5	81.8	1.37	1.29	-0.41	-0.41	6.8	6.7	523.8	455.4	173.9	151.2	
18	92.8	89.5	94.3	81.0	0.96	0.92	-0.33	-0.33	7.3	7.2	330.2	297.5	167.8	151.2	
19	92.8	89.3	95.7	82.4	0.72	0.70	-0.26	-0.24	7.3	6.9	256.8	236.7	164.0	151.2	
20									NO TRACKING DATA						
62	92.4	89.1	94.4	81.0	0.00	0.00	-0.01	-0.01	7.3	7.3	275.3	274.7	151.5	151.2	
63	92.8	89.5	95.2	81.9	1.28	1.20	-0.40	-0.40	7.5	7.5	305.9	270.7	170.8	151.2	
Avg.	92.7	89.3	95.0	81.6	0.87	0.82	-0.28	-0.28	7.2	7.1	338.4	307.0	165.6	151.2	
Std Dv	0.2	0.2	0.7	0.7	0.63	0.60	0.19	0.19	0.3	0.4	124.0	99.0	10.0	0.0	
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS															
48									NO TRACKING DATA						
49	95.5	91.7	98.0	83.7	1.09	1.01	-0.32	-0.33	7.3	7.6	453.8	410.8	167.0	151.2	
50	95.3	91.7	98.4	84.7	-0.72	-0.68	0.20	0.20	6.9	6.7	285.1	304.9	141.4	151.2	
59	95.1	91.6	98.5	84.6	-0.24	-0.22	0.06	0.06	6.7	7.1	437.1	445.5	148.3	151.2	
60	94.8	91.1	96.7	83.1	0.44	0.42	-0.14	-0.14	7.3	7.2	324.6	310.8	157.9	151.2	
61	93.9	90.5	96.5	82.6	-0.04	-0.04	0.00	0.00	7.2	7.3	444.6	445.1	151.0	151.2	
Avg.	94.9	91.3	97.6	83.7	0.11	0.10	-0.04	-0.04	7.1	7.2	389.0	383.4	153.1	151.2	
Std Dv	0.7	0.6	1.1	1.1	0.80	0.74	0.23	0.23	0.3	0.3	90.5	81.4	11.3	0.0	

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-3.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/19/81

CORRECTION DATA

CENTERLINE - CENTER

JUNE 24, 1980

SITE: 1

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PMLM	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
9	95.0	91.7	98.8	85.7	1.19	1.16	-0.39	-0.37	6.8	6.5	160.9	141.2	102.9	90.2
10	95.5	92.1	98.3	84.8	1.04	1.01	-0.38	-0.37	7.7	7.5	153.1	136.5	101.2	90.2
13	96.5	93.7	99.9	86.6	0.85	0.82	-0.27	-0.27	6.6	6.6	336.7	306.4	99.1	90.2
16	97.1	94.1	99.8	86.4	0.36	0.34	-0.15	-0.14	7.6	7.1	109.2	104.4	94.4	90.2
Avg.	96.1	92.9	99.2	85.9	0.86	0.84	-0.30	-0.29	7.1	6.9	190.0	172.1	99.4	90.2
Std Dv	1.2	1.4	1.0	1.0	0.44	0.43	0.14	0.13	0.7	0.6	123.0	111.5	4.5	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
7									NO TRACKING DATA					
8	89.9	87.1	90.3	76.9	0.24	0.25	-0.11	-0.12	7.2	7.7	244.4	235.6	220.0	212.1
13	91.6	88.8	92.9	80.4	0.04	0.06	-0.09	-0.09	7.6	7.2	686.9	667.6	218.3	212.1
14	91.6	88.7	92.1	79.2	0.23	0.23	-0.13	-0.12	7.5	7.3	386.2	371.6	220.5	212.1
Avg.	91.0	88.2	91.8	78.8	0.17	0.18	-0.11	-0.11	7.4	7.4	439.1	424.9	219.6	212.1
Std Dv	1.4	1.4	1.3	2.3	0.16	0.15	0.03	0.02	0.3	0.3	319.6	312.4	1.6	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
2	88.2	85.3	88.3	75.2	0.15	0.18	-0.13	-0.12	7.3	7.1	554.1	532.6	315.9	303.6
3	88.3	85.0	88.6	75.2	0.67	0.66	-0.29	-0.29	7.8	7.8	563.2	517.7	330.2	303.6
4	87.9	85.1	88.1	74.2	-0.18	-0.14	0.00	0.00	7.0	7.6	330.1	329.9	303.8	303.6
42	88.0	85.0	88.7	76.1	0.08	0.09	-0.04	-0.04	6.9	6.6	501.2	493.9	308.1	303.6
43	88.4	85.4	89.0	76.2	0.44	0.42	-0.14	-0.13	7.1	6.8	816.7	781.5	317.2	303.6
44	87.1	84.2	86.7	73.6	0.09	0.10	-0.05	-0.05	7.6	7.6	483.6	476.5	308.1	303.6
45	88.4	85.2	89.2	75.9	0.47	0.45	-0.14	-0.14	6.9	7.0	764.6	730.4	317.8	303.6
Avg.	88.0	85.0	88.4	75.2	0.25	0.25	-0.11	-0.11	7.2	7.2	573.3	551.8	314.4	303.6
Std Dv	0.5	0.4	0.9	1.1	0.32	0.30	0.11	0.10	0.4	0.5	183.7	170.0	9.6	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
5	84.3	81.4	84.4	70.3	0.76	0.74	-0.28	-0.30	7.1	7.6	563.3	514.6	499.1	456.0
6	85.8	82.9	84.6	71.6	0.31	0.32	-0.18	-0.17	7.9	7.7	527.8	501.5	479.8	456.0
11	85.5	82.9	84.7	72.0	0.70	0.68	-0.28	-0.28	7.5	7.4	998.4	916.3	496.8	456.0
12									NO TRACKING DATA					
Avg.	85.2	82.4	84.6	71.3	0.59	0.58	-0.25	-0.25	7.5	7.6	696.5	644.1	491.9	456.0
Std Dv	1.1	1.2	0.2	1.3	0.35	0.32	0.08	0.10	0.6	0.2	214.9	333.4	14.9	0.0

TABLE NO. B.3-1.1G

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA														
SITE: 1G					CENTERLINE - CENTER (FLUSH)					JUNE 24, 1980				
CORRECTED					CORRECTIONS (dB)					CONSTANTS				
EV	EPNL	NEL	PNLTH	QBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
24	103.3	101.6	105.7	93.9	0.44	0.44	-0.14	-0.14	6.3	6.4	146.5	139.2	125.7	119.4
26	103.6	101.7	104.1	92.9	2.05	1.98	-0.66	-0.68	7.1	7.3	211.2	170.5	148.0	119.4
28	102.4	100.8	104.3	92.7	0.08	0.08	-0.04	-0.04	7.2	7.3	140.5	138.8	120.9	119.4
32	101.8	100.0	102.4	90.9	-0.13	-0.12	0.02	0.02	7.2	7.1	222.0	223.2	118.8	119.4
34	102.2	100.6	103.4	91.7	0.09	0.09	-0.04	-0.04	7.0	7.1	129.7	128.1	120.9	119.4
36	101.7	100.0	103.4	91.2	0.80	0.78	-0.26	-0.27	6.9	7.4	186.6	171.2	130.1	119.4
38	101.2	99.4	102.4	91.3	-0.05	-0.04	0.00	0.00	7.5	6.9	195.3	195.2	119.5	119.4
40	102.3	100.5	104.8	92.6	-0.07	-0.06	0.01	0.01	7.2	7.5	145.9	146.5	118.9	119.4
64	99.9	97.8	103.0	91.5	-0.31	-0.30	0.09	0.09	6.5	6.4	120.4	124.4	115.7	119.4
AVG. 102.1 100.3 103.7 92.1 0.32 0.32 -0.11 -0.12 7.0 7.0 166.5 159.7 124.3 119.4														
Std Dv 1.2 1.3 1.2 1.1 0.78 0.75 0.24 0.25 0.4 0.4 40.2 35.5 10.5 0.0														
TAKEDOFF														
23	95.2	92.1	98.7	85.3	-5.86	-5.45	1.49	1.50	6.1	6.1	96.4	170.0	78.3	138.1
25	95.6	92.5	99.4	86.2	-6.27	-5.83	1.55	1.56	5.8	5.8	83.9	155.5	74.6	138.1
27	94.8	91.7	97.1	83.9	-5.42	-4.99	1.48	1.51	6.6	6.7	109.8	183.6	82.6	138.1
31	94.4	91.4	98.2	84.8	-4.74	-4.38	1.19	1.21	6.0	6.1	100.4	158.7	87.4	138.1
33	94.8	91.9	98.7	85.0	-4.41	-4.08	1.11	1.15	6.0	6.2	99.8	153.1	90.0	138.1
35	94.9	91.9	98.5	85.6	-4.96	-4.66	1.35	1.30	6.2	6.0	91.3	149.9	84.1	138.1
37	94.4	91.3	97.7	84.3	-4.83	-4.54	1.31	1.30	6.4	6.3	105.0	168.2	86.2	138.1
39									NO TRACKING DATA					
41	94.0	90.9	97.8	84.2	-4.72	-4.38	1.20	1.19	6.1	6.1	108.0	169.6	87.9	138.1
AVG. 94.8 91.7 98.3 84.9 -5.15 -4.79 1.33 1.34 6.2 6.2 99.3 163.6 83.9 138.1														
Std Dv 0.5 0.6 0.8 0.8 0.69 0.64 0.17 0.17 0.3 0.3 9.4 12.2 5.6 0.0														

TABLE NO. B.3-2.16

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 16		CENTERLINE - CENTER (FLUSH)				JUNE 24, 1980			
CORRECTED		CORRECTIONS (dB)				CONSTANTS			
EV	EPNL	NEL	PNL	dBAM	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS									
21	93.1	89.7	95.5	82.0	0.48	0.47	-0.17	6.6	6.6
22	93.0	89.7	95.2	81.1	0.57	0.55	-0.18	6.4	6.6
46	92.8	89.6	95.1	81.8	0.40	0.39	-0.13	6.7	6.7
47	92.8	89.9	94.7	80.8	1.22	1.15	-0.36	6.8	7.4
AVG.	92.9	89.7	95.1	81.4	0.67	0.64	-0.21	6.6	6.8
Std Dev	0.2	0.2	0.4	0.7	0.46	0.42	0.15	0.2	0.4
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS									
51	94.0	90.9	96.8	83.6	1.58	1.49	-0.47	6.8	6.9
52	93.5	90.4	95.9	82.3	0.32	0.31	-0.10	6.9	6.7
53	93.3	90.0	96.2	82.8	1.43	1.36	-0.41	6.5	6.6
56	93.7	90.4	96.2	82.7	0.34	0.33	-0.10	6.2	6.3
AVG.	93.6	90.4	96.3	82.8	0.92	0.87	-0.27	6.6	6.6
Std Dev	0.4	0.5	0.4	0.7	0.83	0.78	0.25	0.4	0.3
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS									
54	94.1	91.0	96.2	82.9	0.72	0.69	-0.23	7.2	7.2
55	93.9	90.6	96.3	82.9	1.24	1.17	-0.36	6.8	6.9
58	93.7	90.5	95.8	81.4	0.35	0.33	-0.11	6.9	7.4
AVG.	93.9	90.7	96.1	82.4	0.77	0.73	-0.23	7.0	7.2
Std Dev	0.3	0.4	0.4	1.2	0.63	0.60	0.18	0.3	0.4
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS									
17	96.6	93.2	99.1	86.0	1.33	1.26	-0.42	7.0	6.7
18	96.2	93.0	98.7	84.4	0.96	0.91	-0.30	6.6	7.1
19	96.7	93.4	99.7	86.7	0.72	0.69	-0.25	7.2	6.8
20	95.3	92.1	98.2	84.2	0.00	0.00	-0.01	6.6	7.1
62	95.6	92.6	98.3	85.6	1.25	1.19	-0.38	7.3	7.0
63	96.1	92.9	98.8	85.4	0.85	0.81	-0.27	6.9	6.9
AVG.	96.1	92.9	98.8	85.4	0.85	0.81	-0.27	6.9	6.9
Std Dev	0.7	0.6	0.7	1.2	0.62	0.59	0.18	0.4	0.2
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS									
48	98.9	95.4	101.8	87.7	-0.41	-0.34	0.09	7.1	7.5
49	98.7	95.2	101.2	87.6	1.04	1.02	-0.32	7.4	7.3
50	98.6	95.1	102.1	88.3	-0.73	-0.69	0.19	6.6	6.9
59	98.1	94.7	101.4	87.6	-0.27	-0.23	0.06	6.9	7.2
60	97.6	94.0	100.4	86.6	0.43	0.42	-0.14	7.4	7.2
61	97.5	94.2	99.8	86.9	-0.04	-0.04	0.00	7.3	6.8
AVG.	98.2	94.8	101.1	87.5	0.00	0.02	-0.02	7.1	7.2
Std Dev	0.6	0.6	1.0	0.7	0.71	0.68	0.20	0.3	0.3

TRACKING DATA (METERS)
(ACTUAL)

NO TRACKING DATA

NO TRACKING DATA

SRR CPAR
7.2 0.0
10.1 0.0
10.0 0.0
10.2 0.0

TABLE NO. B.3-3.16

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 16				CENTERLINE - CENTER (FLUSH)				JUNE 24, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)				
EV	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR		
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
9	98.9	95.5	103.0	90.1	1.18	1.14	-0.36	-0.33	6.4	5.9	162.3	142.5	104.1	91.4
10	99.2	95.6	103.2	89.3	1.02	1.00	-0.33	-0.34	6.7	6.8	154.4	137.8	102.4	91.4
15	99.3	95.8	103.3	90.1	0.83	0.81	-0.26	-0.27	7.0	6.7	141.7	129.1	100.4	91.4
16	99.3	95.8	103.1	89.6	0.35	0.34	-0.13	-0.13	6.8	6.6	161.6	154.6	95.6	91.4
Avg.	99.2	95.7	103.1	89.7	0.85	0.82	-0.27	-0.27	6.7	6.5	155.0	141.0	100.6	91.4
Std Dv	0.2	0.2	0.2	0.5	0.44	0.43	0.13	0.12	0.3	0.5	11.7	13.0	4.5	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
7									NO TRACKING DATA					
8	93.4	90.4	94.4	81.1	0.22	0.22	-0.11	-0.11	7.1	7.3	351.8	339.2	221.2	213.4
13	94.3	91.2	96.1	83.2	0.13	0.13	-0.09	-0.09	7.3	7.1	348.1	338.4	219.5	213.4
14	93.8	90.7	95.6	81.8	0.25	0.24	-0.11	-0.12	6.9	7.3	330.4	318.0	221.7	213.4
Avg.	93.8	90.8	95.4	82.0	0.20	0.20	-0.10	-0.11	7.1	7.2	343.4	331.9	220.8	213.4
Std Dv	0.6	0.6	1.2	1.5	0.09	0.08	0.02	0.02	0.3	0.2	16.1	17.0	1.6	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
1									NO TRACKING DATA					
2	91.8	88.7	92.3	78.9	0.24	0.25	-0.12	-0.12	6.9	7.1	321.0	308.5	317.1	304.8
3	91.8	88.7	92.3	79.3	0.69	0.66	-0.29	-0.28	7.9	7.6	425.6	391.5	331.4	304.8
4	91.5	88.6	91.2	77.9	-0.25	-0.21	0.00	0.00	7.3	7.4	503.4	503.1	305.0	304.8
42	91.1	88.3	92.5	79.8	0.09	0.09	-0.04	-0.04	6.6	6.4	472.1	465.3	309.3	304.8
43	91.9	88.8	92.8	79.4	0.44	0.42	-0.13	-0.15	6.9	7.6	817.1	782.1	318.5	304.8
44	90.6	87.8	91.6	78.1	0.10	0.10	-0.04	-0.05	6.8	7.1	484.3	477.2	309.3	304.8
45	91.6	88.6	92.8	80.0	0.45	0.43	-0.13	-0.14	6.7	6.9	498.2	476.0	319.0	304.8
Avg.	91.5	88.5	92.2	79.0	0.25	0.25	-0.11	-0.11	7.0	7.2	503.1	486.2	315.7	304.8
Std Dv	0.5	0.4	0.7	0.9	0.34	0.31	0.11	0.10	6.5	0.5	166.8	160.6	9.6	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
5	88.2	85.4	87.5	74.1	0.76	0.73	-0.30	-0.31	7.6	7.8	633.3	578.7	500.3	457.2
6	89.2	86.3	88.7	75.5	0.20	0.22	-0.16	-0.17	7.4	7.6	997.7	948.2	481.0	457.2
11	88.5	85.9	87.4	74.8	0.71	0.69	-0.29	-0.28	7.7	7.5	885.7	813.1	498.0	457.2
12									NO TRACKING DATA					
Avg.	88.6	85.9	87.9	74.8	0.56	0.55	-0.25	-0.25	7.6	7.6	838.9	780.0	493.1	457.2
Std Dv	0.7	0.6	1.1	1.0	0.44	0.40	0.11	0.10	0.2	0.2	210.9	264.4	14.9	0.0

TABLE NO. 8.3-1.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 1H				CENTERLINE - CENTER (10-METER)				JUNE 24, 1980						
CORRECTED				CORRECTIONS (dB)				TRACKING DATA (METERS)						
EV	EPNL	NEL	PMLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
24	97.6	95.8	100.5	88.5	0.48	0.47	-0.16	-0.15	6.6	6.2	137.0	129.7	115.7	109.5
26	97.9	95.9	99.0	87.3	2.28	2.17	-0.71	-0.70	7.1	6.9	203.0	161.0	138.1	109.5
28	96.1	94.2	98.4	86.4	0.09	0.09	-0.04	-0.04	7.0	7.1	130.9	129.1	111.0	109.5
32	96.6	94.6	97.4	85.1	-0.10	-0.09	0.02	0.02	7.2	7.3	115.2	117.0	108.8	109.5
34	96.5	94.7	97.9	85.5	0.09	0.09	-0.04	-0.04	7.2	7.2	119.6	118.1	110.9	109.5
36	96.4	94.2	97.8	85.4	0.89	0.85	-0.28	-0.29	7.0	7.3	178.1	162.3	120.2	109.5
38	96.2	94.0	98.2	86.3	-0.06	-0.05	0.00	0.00	6.9	6.6	188.2	188.3	109.4	109.5
40	96.6	94.4	99.3	86.8	-0.09	-0.08	0.02	0.02	7.1	7.3	136.5	137.2	108.9	109.5
44	93.7	91.2	97.0	84.4	-0.36	-0.34	0.10	0.10	6.5	6.7	116.0	120.2	105.7	109.5
AVG.	96.4	94.3	98.4	86.2	0.36	0.35	-0.12	-0.12	7.0	7.0	147.3	140.3	114.3	109.5
Std Dv	1.3	1.5	1.1	1.3	0.86	0.82	0.26	0.26	0.3	0.4	35.7	26.5	10.6	0.0
TAKEDOFF														
23					-6.45	-6.03	1.63	1.65	5.9	6.0	76.0	142.7	68.3	128.3
25	89.4	85.2	93.1	78.7	-7.05	-6.61	1.77	1.70	5.9	5.7	75.5	149.9	64.6	128.3
27	90.7	86.7	94.3	80.4	-5.95	-5.59	1.45	1.49	5.9	6.0	87.1	153.9	72.6	128.3
29	90.0	85.9	93.7	79.2	-5.30	-4.96	1.32	1.27	6.0	5.8	91.9	152.3	77.4	128.3
31	89.9	85.7	93.7	79.2	-4.83	-4.54	1.33	1.25	6.5	6.1	83.0	132.9	80.2	128.3
33	90.6	86.4	94.0	79.9	-5.57	-5.26	1.52	1.45	6.4	6.1	82.5	142.6	74.2	128.3
35	90.3	86.1	93.8	79.8	-5.41	-5.08	1.51	1.43	6.5	6.3	85.5	143.9	76.2	128.3
37	90.1	85.9	93.1	78.7							NO TRACKING DATA			
39					-5.29	-4.95	1.29	1.29	5.9	6.0	100.4	165.3	78.0	128.3
41	89.6	85.4	93.7	79.1	-5.73	-5.38	1.48	1.44	6.2	6.0	85.2	147.9	73.9	128.3
AVG.	90.1	85.9	93.7	79.4	0.78	0.72	0.18	0.18	0.3	0.2	8.9	10.5	5.7	0.0
Std Dv	0.5	0.5	0.4	0.6										

TABLE NO. B.3-2.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

JUNE 24, 1980

CENTERLINE - CENTER (10-METER)

SITE: 1H

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLIM	CBAM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS														
21	87.0	83.7	89.8	75.6	0.56	0.52	-0.18	-0.19	6.3	6.7	611.7	572.9	152.0	142.3
22	87.3	84.1	89.4	75.0	0.62	0.59	-0.19	-0.21	6.3	6.9	173.0	161.4	152.5	142.3
46	87.5	84.2	90.0	76.1	0.44	0.42	-0.13	-0.14	6.3	6.8	194.9	186.1	149.0	142.3
47	86.9	83.8	89.6	75.0	1.31	1.26	-0.38	-0.41	6.6	7.1	176.9	154.9	162.5	142.3
Avg.	87.2	83.9	89.7	75.4	0.73	0.70	-0.22	-0.24	6.4	6.9	289.1	268.8	154.0	142.3
Std Dv	0.3	0.3	0.3	0.7	0.48	0.47	0.13	0.15	0.2	0.2	263.7	248.8	7.2	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS														
51	87.5	84.4	90.6	76.7	1.70	1.59	-0.49	-0.51	6.6	6.9	226.1	190.8	168.7	142.3
52	87.6	84.5	90.1	76.1	0.35	0.33	-0.10	-0.11	6.4	6.7	194.3	187.4	147.6	142.3
53	87.6	84.2	90.5	76.2	1.54	1.45	-0.43	-0.48	6.5	7.2	225.7	193.5	166.0	142.3
56	87.7	84.4	89.8	76.1	0.37	0.36	-0.11	-0.12	6.6	7.0	192.5	185.2	147.9	142.3
Avg.	87.6	84.4	90.2	76.3	0.99	0.93	-0.28	-0.30	6.5	7.0	209.7	189.2	157.6	142.3
Std Dv	0.1	0.1	0.5	0.4	0.89	0.83	0.25	0.27	0.1	0.2	23.0	4.5	13.9	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS														
54	88.6	85.6	90.6	76.9	0.38	0.36	-0.12	-0.13	7.0	7.5	189.1	181.8	148.0	142.3
55	88.0	84.9	90.9	76.9	0.78	0.74	-0.23	-0.25	6.6	7.2	201.9	186.6	154.0	142.3
57	87.9	84.6	90.7	76.8	1.30	1.22	-0.38	-0.40	6.7	7.1	213.6	187.6	162.1	142.3
58	87.5	84.4	89.9	75.6	0.37	0.35	-0.11	-0.12	6.7	7.2	179.1	172.4	147.9	142.3
Avg.	88.0	84.9	90.5	76.6	0.71	0.67	-0.21	-0.22	6.7	7.2	195.9	182.1	153.0	142.3
Std Dv	0.5	0.6	0.5	0.8	0.54	0.50	0.15	0.16	0.2	0.2	18.4	8.5	8.2	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
17	90.4	87.1	94.0	81.0	1.50	1.42	-0.45	-0.45	7.0	6.9	565.2	497.4	165.1	142.3
18	89.9	86.9	91.5	78.4	1.04	0.98	-0.34	-0.35	7.2	7.3	261.0	233.7	159.0	142.3
19	90.2	87.1	92.8	79.2	0.78	0.75	-0.27	-0.28	7.3	7.5	217.1	199.3	153.2	142.3
20									NO TRACKING DATA					
62	88.6	85.7	90.4	77.2	0.00	0.01	-0.01	-0.01	7.5	7.6	234.9	234.4	162.7	142.3
63	89.6	86.6	91.9	78.7	1.32	1.26	-0.41	-0.43	7.4	7.6	231.5	207.4	162.0	142.3
Avg.	89.7	86.7	92.1	78.9	0.93	0.88	-0.30	-0.30	7.3	7.4	302.0	271.6	156.8	142.3
Std Dv	0.8	0.7	1.6	1.6	0.68	0.64	0.20	0.21	0.2	0.3	171.0	140.6	10.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS														
48									NO TRACKING DATA					
49	93.1	89.7	94.9	81.5	1.13	1.02	-0.36	-0.36	7.9	7.8	201.8	181.6	158.2	142.3
50	92.5	89.2	95.9	82.3	-0.79	-0.74	0.20	0.21	6.6	6.9	280.2	301.0	132.5	142.3
59	92.2	88.9	95.1	81.9	-0.27	-0.25	0.06	0.06	7.1	6.9	433.5	442.4	139.5	142.3
60	92.2	88.7	94.8	81.4	0.48	0.46	-0.15	-0.14	7.3	7.1	363.6	347.2	149.1	142.3
61	91.6	88.4	94.3	81.1	-0.05	-0.05	0.00	0.00	7.5	7.6	489.1	489.7	142.2	142.3
Avg.	92.3	89.0	95.0	81.6	0.10	0.09	-0.05	-0.05	7.3	7.3	353.7	352.4	144.3	142.3
Std Dv	0.6	0.6	0.7	0.5	0.85	0.78	0.25	0.25	0.6	0.5	133.3	140.0	11.3	0.0

TABLE NO. B.3-3.1H

AUGUSTIA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 1H		CENTERLINE - CENTER (10-METER)				JUNE 24, 1980					
CORRECTED					CORRECTIONS (dB)		CONSTANTS		TRACKING DATA (METERS)		
EV	EPNL	NEL	PWLTN	GBAH	$\Delta 1(P) \Delta 1(A) \Delta 2(P) \Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS											
9	92.7	89.4	96.9	83.7	1.33 1.28 -0.41 -0.40	6.6	6.4	124.8	108.0	94.1	81.4
10								NO TRACKING DATA			
15	92.5	89.3	96.9	83.3	0.95 0.91 -0.30 -0.29	6.6	6.4	133.7	120.5	90.3	81.4
16	93.4	90.2	96.6	83.1	0.38 0.38 -0.16 -0.16	7.3	7.4	343.5	326.6	85.6	81.4
AVG.	92.9	89.6	96.8	83.4	0.89 0.86 -0.29 -0.28	6.8	6.7	200.7	185.0	90.0	81.4
Std Dev	0.7	0.7	0.2	0.4	0.68 0.64 0.18 0.17	0.6	0.8	175.0	173.6	6.0	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS											
7								NO TRACKING DATA			
8	87.6	85.1	88.2	74.8	0.24 0.25 -0.12 -0.12	7.3	7.5	272.1	261.9	211.2	203.3
13	87.5	84.6	89.2	75.7	0.17 0.17 -0.09 -0.10	7.2	7.5	274.5	266.4	209.5	203.3
14	87.7	85.0	88.5	75.0	0.27 0.27 -0.13 -0.13	7.5	7.7	350.8	337.0	211.6	203.3
AVG.	87.6	84.9	88.6	75.2	0.23 0.23 -0.11 -0.12	7.3	7.6	299.1	288.4	210.8	203.3
Std Dev	0.1	0.4	0.7	0.7	0.07 0.07 0.03 0.02	0.2	0.2	63.3	59.5	1.6	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS											
1								NO TRACKING DATA			
2	84.6	83.5	85.7	72.7	0.20 0.21 -0.13 -0.13	7.3	7.5	489.3	469.7	307.1	294.7
3	85.0	82.3	85.8	72.3	0.74 0.70 -0.28 -0.30	7.5	7.9	447.8	410.4	321.6	294.7
4	85.4	82.9	84.9	72.1	-0.25 -0.19 0.00 0.00	7.6	7.5	496.4	496.1	294.9	294.7
42	85.4	82.7	85.9	73.4	0.09 0.09 -0.05 -0.05	7.1	6.9	525.1	517.2	299.2	294.7
43	85.7	82.8	86.7	73.4	0.45 0.42 -0.14 -0.14	6.8	6.9	399.4	381.6	308.5	294.7
44	85.2	82.5	85.5	72.3	0.11 0.11 -0.05 -0.05	7.2	7.4	386.4	380.5	299.3	294.7
45	85.6	82.7	85.9	73.2	0.46 0.44 -0.15 -0.14	7.2	7.1	323.5	308.6	309.0	294.7
AVG.	85.5	82.8	85.8	72.8	0.26 0.25 -0.11 -0.12	7.3	7.3	438.3	423.4	305.7	294.7
Std Dev	0.3	0.4	0.6	0.6	0.35 0.32 0.10 0.11	0.3	0.4	78.7	81.4	9.7	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS											
5	82.0	79.3	81.0	67.8	0.75 0.73 -0.31 -0.32	7.8	7.9	1006.6	917.3	490.6	447.1
6	83.6	80.8	82.1	69.3	0.22 0.26 -0.17 -0.18	7.5	8.0	917.4	870.9	471.0	447.1
11	81.7	79.0	81.7	68.5	0.74 0.71 -0.27 -0.27	7.0	7.1	953.9	873.6	488.3	447.1
12								NO TRACKING DATA			
AVG.	82.5	79.7	81.6	68.5	0.57 0.57 -0.25 -0.26	7.4	7.6	959.3	887.3	483.3	447.1
Std Dev	1.5	1.4	0.8	1.1	0.43 0.38 0.10 0.10	0.6	0.7	41.9	36.8	15.2	0.0

TABLE NO. B.3-1.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/19/81

CORRECTION DATA

JUNE 24, 1980

CENTERLINE - 150 M. WEST

SITE: 2

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PWLTH	CPRM	$\wedge(1(P) \wedge 1(a) \wedge 2(P) \wedge 2(a))$	$\wedge(1(P) \wedge 1(a) \wedge 2(P) \wedge 2(a))$	$\wedge(1(P) \wedge 1(a) \wedge 2(P) \wedge 2(a))$	$\wedge(1(P) \wedge 1(a) \wedge 2(P) \wedge 2(a))$	K(P)	K(a)	SR	CPA	SRR	CPAR
APPROACH														
24	101.1	98.8	103.1	91.0	0.13	0.13	-0.05	-0.05	6.9	6.7	131.9	129.6	104.4	102.6
26	101.7	99.4	105.0	92.0	1.83	1.77	-0.52	-0.56	6.1	6.6	140.1	115.1	124.8	102.6
28	101.2	99.0	104.1	91.1	-0.29	-0.27	0.07	0.08	6.4	6.9	112.7	115.8	99.9	102.6
32	101.2	98.6	101.7	89.8	0.01	0.02	-0.02	-0.02	7.8	7.2	198.0	194.9	103.2	102.6
34	101.4	99.1	103.6	91.2	-0.03	-0.02	0.00	0.00	6.9	7.0	131.9	131.8	102.6	102.6
36	99.7	97.3	103.0	90.0	0.39	0.38	-0.12	-0.12	6.1	6.5	115.5	110.5	107.2	102.6
38	100.9	98.2	103.0	90.2	-0.04	-0.03	0.00	0.00	6.9	6.9	122.9	123.0	102.5	102.6
40	100.4	98.1	103.5	91.0	-0.46	-0.44	0.12	0.13	6.2	6.3	116.3	121.8	98.0	102.6
64	98.4	95.8	101.0	88.9	-0.30	-0.28	0.09	0.08	6.7	6.3	129.3	133.2	99.5	102.6
Avg.	100.7	98.3	103.1	90.6	0.14	0.14	-0.05	-0.05	6.7	6.7	133.2	130.9	104.7	102.6
Std Dv	1.1	1.2	1.3	1.0	0.73	0.70	0.21	0.22	0.6	0.3	27.7	27.8	8.6	0.0
TAKEOFF														
23	93.6	89.7	97.3	83.2	-5.32	-5.05	1.45	1.41	6.2	6.0	65.4	112.1	59.2	101.4
25	94.1	90.5	98.6	84.7	-6.20	-5.86	1.47	1.50	5.4	5.6	64.6	120.6	54.4	101.4
29	93.2	89.6	97.4	83.6	-4.87	-4.60	1.21	1.21	5.7	5.7	64.1	108.0	62.1	101.4
31	93.1	89.5	97.7	83.6	-4.36	-4.14	1.05	1.05	5.5	5.5	69.9	108.6	65.3	101.4
33	93.1	89.7	97.3	83.7	-4.16	-3.90	1.10	1.03	6.0	5.6	69.3	105.3	66.7	101.4
35	93.0	89.5	97.2	83.4	-4.61	-4.40	1.16	1.15	5.6	5.6	63.7	102.2	63.2	101.4
37	93.4	89.8	97.7	83.5	-4.61	-4.36	1.13	1.17	5.6	5.8	71.8	114.1	63.8	101.4
39											NO TRACKING DATA			
41	92.9	89.3	97.1	82.9	-4.28	-4.05	1.12	1.11	6.1	6.0	76.8	117.7	66.2	101.4
Avg.	93.3	89.7	97.5	83.6	-4.80	-4.54	1.21	1.20	5.8	5.7	68.5	111.1	62.6	101.4
Std Dv	0.4	0.4	0.5	0.5	0.73	0.69	0.17	0.18	0.3	0.2	4.8	6.7	4.4	0.0

TABLE NO. B.3-2.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

JUNE 24, 1980

CENTERLINE - 150 M. WEST

SITE: 2

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	GBAH	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS														
21	90.5	87.3	93.8	79.1	0.32	0.32	-0.12	-0.13	5.9	6.4	597.1	569.2	158.6	151.2
22	90.8	88.0	94.0	79.0	0.53	0.52	-0.16	-0.17	6.1	6.6	179.4	168.8	160.7	151.2
46	91.1	87.9	93.9	79.2	0.52	0.50	-0.15	-0.16	6.2	6.8	171.9	162.8	159.7	151.2
47	91.0	88.4	93.3	80.0	1.29	1.22	-0.39	-0.37	7.0	6.6	228.0	200.3	172.1	151.2
Avg.	90.9	87.9	93.8	79.3	0.46	0.44	-0.20	-0.21	6.3	6.6	294.1	275.2	162.8	151.2
Std Dv	0.3	0.5	0.4	0.6	0.52	0.49	0.15	0.13	0.6	0.2	249.2	240.8	7.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS														
51	91.2	88.1	93.2	79.2	1.39	1.31	-0.43	-0.43	7.1	7.1	181.6	157.9	173.9	151.2
52	90.9	87.5	95.2	81.3	0.48	0.45	-0.13	-0.13	5.9	6.2	178.6	170.0	158.8	151.2
53	90.7	87.6	92.7	78.9	1.34	1.25	-0.41	-0.42	7.1	7.1	191.5	167.4	173.0	151.2
56	90.9	87.7	94.5	79.5	0.33	0.31	-0.09	-0.10	6.0	6.6	174.7	168.9	156.4	151.2
Avg.	90.9	87.7	93.9	79.7	0.88	0.83	-0.26	-0.27	6.5	6.7	181.6	166.0	165.5	151.2
Std Dv	0.2	0.4	1.4	1.3	0.68	0.64	0.22	0.22	0.8	0.6	8.8	6.8	11.3	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS														
54	92.6	89.2	95.0	80.1	0.29	0.28	-0.08	-0.10	6.2	7.4	173.6	168.4	155.8	151.2
55	91.8	88.5	93.4	79.4	0.72	0.68	-0.24	-0.26	7.6	8.1	192.5	178.9	162.7	151.2
57	91.4	88.0	93.4	79.7	1.14	1.07	-0.34	-0.35	7.1	7.2	280.3	250.8	168.9	151.2
58	91.4	88.0	94.5	79.8	0.29	0.28	-0.08	-0.09	5.9	6.6	172.9	167.6	155.9	151.2
Avg.	91.8	88.4	94.1	79.7	0.61	0.58	-0.18	-0.20	6.7	7.4	204.8	191.4	160.8	151.2
Std Dv	0.7	0.7	1.0	0.4	0.50	0.46	0.16	0.16	1.0	0.7	62.6	48.9	7.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
17	94.9	91.7	96.5	83.0	1.31	1.24	-0.49	-0.50	8.2	8.4	310.7	271.0	173.3	151.2
18	93.6	90.2	95.5	81.2	0.93	0.89	-0.30	-0.32	6.8	7.2	178.8	161.5	167.4	151.2
19	93.9	90.4	95.9	82.7	0.77	0.74	-0.29	-0.28	7.6	7.4	505.7	463.9	164.8	151.2
20									NO TRACKING DATA					
62	93.6	90.4	95.6	82.2	0.08	0.08	-0.03	-0.03	7.2	7.0	254.5	252.1	152.6	151.2
63	93.3	90.1	95.0	81.7	1.20	1.12	-0.37	-0.37	7.6	7.6	297.5	263.8	169.2	151.2
Avg.	93.9	90.6	95.7	82.2	0.86	0.81	-0.30	-0.30	7.5	7.5	309.4	282.8	165.5	151.2
Std Dv	0.7	0.8	0.6	0.8	0.56	0.52	0.19	0.20	0.6	0.6	140.0	127.7	9.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS														
48	95.5	92.0	97.8	84.1	-0.12	-0.10	0.02	0.02	7.5	7.5	475.7	478.8	150.2	151.2
49	96.3	92.9	98.0	84.5	1.34	1.24	-0.35	-0.35	7.4	7.3	651.8	583.4	168.9	151.2
50	95.4	91.9	97.1	83.5	-0.60	-0.56	0.16	0.16	7.7	7.4	507.8	533.1	144.0	151.2
59	94.4	90.9	97.9	84.1	-0.46	-0.42	0.11	0.12	6.9	7.1	397.9	413.4	145.5	151.2
60	95.5	91.8	97.7	84.0	0.40	0.38	-0.12	-0.12	7.2	7.1	363.7	349.9	157.2	151.2
61	94.7	91.4	96.8	83.2	-0.31	-0.28	0.08	0.08	7.5	7.5	316.3	324.6	147.3	151.2
Avg.	95.3	91.8	97.5	83.9	0.04	0.04	-0.02	-0.01	7.4	7.3	452.2	447.2	152.2	151.2
Std Dv	0.8	0.7	0.6	0.5	0.81	0.75	0.21	0.21	0.3	0.2	134.8	114.6	10.5	0.0

TABLE NO. B.3-3.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 24, 1980

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	MEL	PMLTH	GRAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
9	96.3	92.9	99.9	86.4	1.28	1.22	-0.42	-0.40	7.0	6.7	229.0	199.5	103.6	90.2
10	97.1	93.5	99.8	85.6	1.25	1.20	-0.44	-0.47	7.5	8.0	123.6	107.9	103.4	90.2
15	96.4	92.9	99.6	85.9	0.75	0.73	-0.27	-0.27	7.4	7.3	287.1	263.7	98.2	90.2
16	96.7	93.1	100.0	86.4	0.75	0.72	-0.26	-0.25	7.0	6.8	182.8	168.0	98.1	90.2
Avg.	96.6	93.1	99.8	86.1	1.01	0.97	-0.35	-0.35	7.2	7.2	205.6	184.7	100.8	90.2
Std Dv	0.4	0.4	0.2	0.5	0.36	0.34	0.12	0.13	0.5	0.8	84.9	79.5	3.7	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
7	NO TRACKING DATA													
8	91.5	88.5	92.5	78.9	0.36	0.36	-0.16	-0.16	7.3	7.3	352.7	335.2	223.2	212.1
13	91.6	88.4	92.3	79.6	0.14	0.17	-0.14	-0.13	8.1	7.7	828.4	795.8	220.8	212.1
14	91.5	88.4	92.6	78.4	0.31	0.31	-0.13	-0.14	6.9	7.6	244.6	234.4	221.3	212.1
Avg.	91.5	88.4	92.4	79.0	0.27	0.28	-0.14	-0.14	7.4	7.5	475.2	455.2	221.8	212.1
Std Dv	0.1	0.1	0.2	0.9	0.16	0.14	0.02	0.02	0.8	0.3	439.3	423.3	1.8	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
1	NO TRACKING DATA													
2	89.3	86.4	88.9	75.0	0.23	0.25	-0.13	-0.14	7.3	7.7	347.4	333.4	316.3	303.6
3	89.0	86.1	88.8	75.7	0.57	0.56	-0.27	-0.25	8.1	7.6	655.6	607.6	327.6	303.6
4	88.9	86.1	89.0	75.7	-0.17	-0.13	-0.01	-0.01	7.2	7.3	330.2	329.6	304.1	303.6
42	89.4	86.3	89.8	76.9	0.02	0.03	-0.03	-0.03	7.1	6.9	514.6	510.0	306.4	303.6
43	-	87.6	90.1	76.8	0.32	0.30	-	-0.11	-	7.3	856.0	826.9	314.2	303.6
44	89.0	85.8	89.9	76.5	0.24	0.23	-0.08	-0.08	7.0	7.1	490.5	477.3	312.0	303.6
45	89.1	85.9	89.6	76.8	0.43	0.41	-0.14	-0.13	7.3	6.9	602.3	576.8	317.0	303.6
Avg.	89.1	86.3	89.4	76.2	0.23	0.24	-0.11	-0.11	7.3	7.3	542.4	523.1	313.9	303.6
Std Dv	0.2	0.7	0.6	0.8	0.27	0.25	0.11	0.09	0.4	0.4	200.6	188.7	8.5	0.0
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
5	85.7	82.7	84.2	70.6	0.68	0.66	-0.28	-0.29	7.8	8.0	542.4	499.3	495.4	456.0
6	87.0	84.2	85.8	72.6	0.32	0.34	-0.19	-0.19	7.8	7.9	761.9	720.8	482.0	456.0
11	85.5	82.6	84.8	72.4	0.69	0.67	-0.27	-0.26	7.5	7.2	880.7	809.6	494.1	456.0
12	NO TRACKING DATA													
Avg.	86.1	83.2	85.0	71.9	0.56	0.56	-0.25	-0.25	7.7	7.7	728.3	676.5	491.1	456.0
Std Dv	1.2	1.2	1.2	1.5	0.30	0.27	0.07	0.07	0.2	0.6	242.7	226.0	11.2	0.0

TABLE NO. E.3-1.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOI/TSC
12/21/81

CORRECTION DATA

EU	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTM	dBAN	$\wedge(1(F))$	$\wedge(1(A))$	$\wedge(2(F))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
24	98.9	96.7	99.0	86.6	0.70	0.69	-0.26	-0.27	7.7	7.8	145.5	134.5	144.9	133.9
26	103.4	100.8	103.2	90.3	2.04	1.97	-0.71	-0.73	7.4	7.6	167.4	134.5	166.6	133.9
28	97.9	95.5	98.9	86.4	0.37	0.37	-0.13	-0.13	6.9	6.6	142.7	136.6	139.9	133.9
32	97.8	95.3	98.9	85.2	-0.27	-0.25	0.07	0.08	6.9	7.5	144.6	148.1	130.7	133.9
34	99.0	96.5	99.3	87.0	0.14	0.14	-0.06	-0.06	7.5	7.4	159.2	156.3	136.4	133.9
36	99.3	96.8	101.3	87.9	0.93	0.90	-0.29	-0.32	6.7	7.3	148.9	134.6	148.1	133.9
38	97.6	95.3	99.1	87.1	-0.33	-0.31	0.09	0.09	6.5	6.6	156.7	161.4	129.9	133.9
40	97.7	95.5	98.5	86.1	0.25	0.24	-0.09	-0.09	6.8	7.0	140.2	136.2	137.8	133.9
AVG.	98.9	96.5	99.8	87.1	0.48	0.47	-0.17	-0.18	7.1	7.2	150.6	142.8	141.8	133.9
Std Dev	2.1	2.0	1.8	1.5	0.82	0.79	0.28	0.29	0.5	0.5	10.2	11.8	12.8	0.0
TAKEOFF														
23	90.3	87.3	92.7	79.4	-6.31	-5.90	1.65	1.69	6.4	6.5	110.3	199.9	95.2	172.4
25	90.4	87.6	92.6	79.1	-6.32	-5.77	1.67	1.72	6.7	6.9	125.8	223.2	97.2	172.4
27	89.7	86.7	92.2	78.7	-5.75	-5.27	1.48	1.53	6.5	6.7	121.9	206.5	101.8	172.4
31	89.8	86.7	92.1	78.8	-4.94	-4.55	1.35	1.32	6.8	6.6	116.2	184.0	108.9	172.4
33	90.2	87.0	92.6	79.3	-4.55	-4.19	1.27	1.22	6.8	6.5	112.4	172.5	112.3	172.4
35	90.1	87.2	92.8	79.4	-5.48	-5.03	1.45	1.42	6.5	6.4	118.8	197.6	103.7	172.4
37	89.8	86.5	91.9	78.1	-5.02	-4.65	1.39	1.39	6.7	6.7	107.3	172.6	107.2	172.4
39											NO TRACKING DATA			
41	89.6	86.6	91.9	78.3	-4.96	-4.52	1.31	1.33	6.7	6.8	115.5	212.7	109.8	172.4
AVG.	90.0	87.9	92.4	78.9	-5.42	-4.98	1.45	1.45	6.6	6.7	118.5	196.1	104.5	172.4
Std Dev	0.3	0.4	0.4	0.5	0.72	0.67	0.16	0.19	0.2	0.2	9.9	19.9	6.6	0.0

JUNE 24, 1980

CENTERLINE - 150 M. EAST

SITE: 3

TABLE NO. B.3-2.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/ISC
12/21/81

CORRECTION DATA

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)				
EV	EPNL	NEL	PWLTM	dBAM	^1(P)	^1(A)	^2(P)	^2(A)	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS														
21	90.6	87.2	92.6	77.5	0.37	0.35	-0.14	-0.16	6.3	7.4	540.4	513.8	159.0	151.2
22	90.1	87.0	91.8	77.2	0.71	0.68	-0.22	-0.25	6.3	7.2	165.8	153.2	163.6	151.2
46	89.2	86.0	91.2	77.2	0.39	0.38	-0.12	-0.13	6.5	7.1	162.9	156.3	157.6	151.2
47	89.2	86.0	92.1	77.0	1.36	1.29	-0.37	-0.44	6.1	7.3	177.2	154.4	173.5	151.2
AVG.	89.8	86.6	91.9	77.2	0.71	0.67	-0.21	-0.25	6.3	7.2	261.6	244.4	163.4	151.2
Std Dev	0.8	0.8	0.7	0.2	0.57	0.53	0.14	0.17	0.2	0.2	227.8	220.0	8.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS														
51	91.3	88.2	94.3	79.6	1.66	1.56	-0.48	-0.52	6.6	7.2	191.4	162.0	178.6	151.2
52	90.5	87.5	92.2	78.3	0.30	0.29	-0.09	-0.10	6.8	7.3	166.1	161.0	156.0	151.2
53	90.8	87.6	93.1	78.7	1.40	1.32	-0.41	-0.45	6.7	7.3	178.6	155.2	174.0	151.2
56	90.8	88.0	92.8	78.7	0.53	0.51	-0.16	-0.17	6.9	7.2	168.1	159.1	159.7	151.2
AVG.	90.9	87.8	93.1	78.8	0.97	0.92	-0.28	-0.31	6.7	7.3	176.0	159.3	167.1	151.2
Std Dev	0.4	0.4	1.1	0.7	0.81	0.75	0.23	0.25	0.2	0.1	14.2	3.7	13.4	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS														
54	92.1	89.0	93.1	80.1	0.80	0.76	-0.26	-0.26	7.4	7.3	172.5	159.0	164.0	151.2
55	92.0	88.9	93.6	80.2	1.41	1.33	-0.44	-0.44	7.4	7.4	295.9	258.4	173.1	151.2
58	90.6	87.4	92.3	78.3	0.49	0.47	-0.16	-0.17	7.3	7.5	171.5	162.9	159.1	151.2
AVG.	91.6	88.4	93.0	79.6	0.90	0.85	-0.29	-0.29	7.4	7.4	213.3	193.4	165.4	151.2
Std Dev	1.2	1.2	1.0	1.5	0.66	0.62	0.20	0.19	0.1	0.1	101.2	79.6	10.1	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
17	93.5	90.4	96.2	83.2	1.38	1.32	-0.48	-0.46	7.7	7.4	310.5	268.8	174.6	151.2
18	93.2	90.1	94.4	81.2	0.75	0.73	-0.27	-0.27	7.5	7.5	247.4	227.4	164.5	151.2
19	93.4	90.3	96.0	82.9	0.71	0.68	-0.25	-0.25	7.2	7.3	458.9	423.6	163.8	151.2
20	92.3	89.4	94.6	81.7	-0.05	-0.04	0.01	0.01	7.3	6.7	228.8	229.5	150.7	151.2
63	93.5	90.4	95.4	82.3	1.58	1.49	-0.49	-0.49	7.4	7.3	276.9	237.7	176.1	151.2
AVG.	93.2	90.1	95.3	82.3	0.87	0.84	-0.30	-0.29	7.4	7.2	304.5	277.4	165.9	151.2
Std Dev	0.6	0.5	0.9	0.9	0.74	0.70	0.24	0.23	0.2	0.3	105.9	96.3	11.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS														
48	95.3	92.2	97.4	84.1	1.00	0.95	-0.32	-0.28	7.6	6.5	273.6	248.2	166.7	151.2
49	95.9	92.7	98.5	85.1	-0.82	-0.78	0.23	0.23	6.9	7.1	325.8	331.5	140.1	151.2
50	95.5	92.1	97.7	84.4	0.08	0.08	-0.03	-0.03	7.4	7.3	386.3	382.4	152.7	151.2
59	95.7	92.4	98.4	85.2	0.48	0.46	-0.13	-0.12	6.4	6.3	507.1	484.6	158.2	151.2
60	95.8	92.4	98.4	85.2	0.48	0.46	-0.13	-0.12	6.4	6.3	507.1	484.6	158.2	151.2
61	94.8	91.6	97.7	84.5	0.39	0.37	-0.12	-0.12	7.2	7.0	307.2	295.6	157.1	151.2
AVG.	95.4	92.2	97.9	84.7	0.23	0.22	-0.07	-0.06	7.1	6.8	360.0	352.4	155.0	151.2
Std Dev	0.5	0.5	0.6	0.5	0.78	0.74	0.23	0.22	0.5	0.5	106.1	104.0	11.2	0.0

TABLE NO. B.3-3.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA														JUNE 24, 1980							
SITE: 3														CENTERLINE - 150 M. EAST							
CORRECTED														CONSTANTS				TRACKING DATA (METERS)			
CORRECTIONS (dB)														K(P) K(A)				(ACTUAL) (REFERENCE)			
/1(P) /1(A) /2(P) /2(A)														SR CPA SRR CPAR							
EV																					
EPNL NEL PNLTM dBAM																					
AIRSPEED 130 KTS																					
300 FT. FLYOVER - TARGET INDICATED																					
9	94.9	91.6	98.7	85.7	1.11	1.08	-0.36	-0.34	6.7	6.4	167.0	147.7	102.0	90.2							
10	95.4	92.5	98.0	84.8	0.70	0.68	-0.26	-0.25	7.5	7.0	265.4	244.7	97.8	90.2							
15	96.1	93.0	99.0	86.1	0.91	0.88	-0.31	-0.29	7.0	6.7	146.8	132.6	99.9	90.2							
16	95.6	92.5	98.1	84.9	-0.22	-0.20	0.04	0.04	6.9	7.1	175.6	177.9	89.0	90.2							
Avg.	95.5	92.4	98.4	85.4	0.62	0.61	-0.22	-0.21	7.0	6.8	188.7	175.8	97.2	90.2							
Std Dv	0.6	0.7	0.6	0.8	0.72	0.69	0.22	0.21	0.4	0.4	64.4	60.9	7.0	0.0							
AIRSPEED 130 KTS																					
700 FT. FLYOVER - TARGET INDICATED																					
7																					
8	90.2	87.6	90.0	77.4	0.09	0.12	-0.11	-0.11	7.6	7.5	640.2	619.7	219.2	212.1							
13	90.9	88.0	92.2	79.4	0.03	0.05	-0.07	-0.07	8.0	7.7	419.6	411.3	216.5	212.1							
14	90.0	87.4	89.7	77.1	0.11	0.13	-0.09	-0.09	7.7	7.6	360.1	350.6	217.9	212.1							
Avg.	90.4	87.7	90.6	78.0	0.08	0.10	-0.09	-0.09	7.7	7.6	473.3	460.5	217.8	212.1							
Std Dv	0.5	0.4	1.9	1.7	0.06	0.06	0.03	0.03	0.3	0.2	208.7	199.6	1.9	0.0							
AIRSPEED 130 KTS																					
1000 FT. FLYOVER - TARGET INDICATED																					
1																					
2	88.9	86.1	87.7	74.9	0.07	0.12	-0.11	-0.11	7.0	7.7	530.0	513.1	313.6	303.6							
3	88.2	85.2	89.4	76.8	0.73	0.73	-0.29	-0.28	7.2	6.8	908.8	827.7	333.3	303.6							
4	88.3	85.6	87.7	74.8	-0.24	-0.20	0.00	0.00	7.4	7.6	448.8	448.7	303.6	303.6							
42	88.9	86.1	88.3	76.0	0.19	0.19	-0.08	-0.08	7.9	7.6	552.8	539.5	311.1	303.6							
43	88.9	86.2	89.7	77.6	0.53	0.50	-0.17	-0.16	7.5	7.0	863.0	819.7	319.6	303.6							
44																					
45	87.8	84.7	88.1	74.9	0.49	0.46	-0.14	-0.14	7.0	6.9	687.1	655.3	318.3	303.6							
Avg.	88.5	85.7	88.5	75.8	0.29	0.30	-0.13	-0.13	7.5	7.3	665.1	634.0	316.6	303.6							
Std Dv	0.5	0.7	1.0	1.3	0.40	0.37	0.11	0.10	0.4	0.5	210.2	180.5	11.2	0.0							
AIRSPEED 130 KTS																					
1500 FT. FLYOVER - TARGET INDICATED																					
5	81.5	79.5	81.9	69.9	0.83	0.81	-0.30	-0.30	6.9	6.8	1053.7	953.0	504.2	456.0							
6	85.4	82.9	83.3	71.2	0.19	0.20	-0.16	-0.15	7.9	7.7	681.1	651.0	477.1	456.0							
11	85.1	82.3	83.1	70.7	0.71	0.66	-0.29	-0.28	8.1	7.8	1042.6	958.6	495.9	456.0							
12																					
Avg.	84.0	81.6	82.8	70.6	0.58	0.56	-0.25	-0.24	7.6	7.4	925.8	854.2	492.4	456.0							
Std Dv	3.0	2.5	1.1	0.9	0.48	0.45	0.11	0.12	0.9	0.7	244.7	203.2	19.7	0.0							

TABLE NO. B.3-1.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOI/TSC
12/21/81

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	GBAN	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
SITE: 4 SIDELINE - 164 M. NORTH JUNE 24, 1980														
APPROACH														
24	97.8	94.9	98.4	85.8	1.03	0.99	-0.35	-0.35	7.5	7.4	262.3	235.2	213.0	191.0
26	-	94.2	98.5	85.6	1.38	1.32	-	-0.47	-	7.4	234.6	203.1	220.6	191.0
28	94.9	92.0	96.1	81.9	-0.29	-0.26	0.07	0.08	6.6	7.4	189.6	194.3	186.4	191.0
32	93.7	90.8	93.8	80.3	-0.13	-0.11	0.02	0.02	7.2	7.2	190.1	191.6	189.5	191.0
34	94.4	91.4	95.9	81.6	-0.04	-0.03	0.00	0.00	6.4	7.2	193.4	193.4	191.0	191.0
36	94.2	93.6	94.1	83.7	0.16	0.16	-0.07	-0.06	7.1	6.9	244.7	239.6	195.1	191.0
38	93.2	90.4	93.0	80.0	-0.16	-0.14	0.03	0.03	7.1	7.1	268.3	271.0	189.1	191.0
40	95.9	93.2	97.2	84.1	0.12	0.12	-0.05	-0.05	7.5	7.3	235.8	232.0	194.1	191.0
64	94.9	91.7	97.6	84.2	-0.21	-0.19	0.06	0.06	7.1	7.2	200.1	203.9	187.4	191.0
AVG.														
Std Dev	1.5	1.7	2.1	2.3	0.63	0.60	0.15	0.21	0.4	0.2	33.7	29.4	13.0	0.0
TAKEOFF														
23	91.8	88.4	93.6	79.5	-2.12	-1.99	0.60	0.62	7.0	7.2	188.5	230.0	166.4	203.1
25	91.4	87.9	93.6	79.2	-2.20	-2.07	0.60	0.66	6.6	7.2	179.5	221.1	164.9	203.1
27	-	88.1	93.2	79.4	-1.93	-1.81	-	0.57	-	7.3	190.7	228.0	169.8	203.1
29	91.4	88.4	92.8	78.9	-1.85	-1.74	0.52	0.56	7.1	7.6	213.7	253.4	171.2	203.1
31	91.3	88.2	92.9	78.7	-1.92	-1.80	0.54	0.58	6.9	7.5	197.5	236.1	169.9	203.1
33	91.1	87.9	92.1	78.7	-2.25	-2.12	0.67	0.67	7.4	7.4	199.3	245.6	164.7	203.1
35	91.8	88.7	93.3	79.2	-1.76	-1.66	0.50	0.54	7.0	7.5	193.3	227.9	172.2	203.1
37	91.5	88.2	93.6	79.1	-1.71	-1.61	0.46	0.51	6.7	7.4	197.7	231.7	173.2	203.1
41	91.5	88.2	93.1	79.1	-1.97	-1.85	0.56	0.59	7.0	7.4	195.0	234.3	169.0	203.1
Std Dev	0.3	0.3	0.6	0.3	0.22	0.20	0.08	0.06	0.3	0.2	10.7	11.4	3.6	0.0

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-2.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOI/TSC
12/21/81

CORRECTION DATA

SITE: 4 SIDELINE - 164 N. NORTH

JUNE 24, 1980

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
500 FT. FLYBY - TARGET INDICATED AIRSPEED 87 KTS														
21	87.0	84.2	86.4	73.6	-0.83	-0.77	0.15	0.15	7.3	7.4	509.5	533.6	203.3	212.9
22	87.5	84.4	87.2	74.1	0.33	0.32	-0.13	-0.13	7.1	7.3	257.9	247.3	222.1	212.9
46	86.4	83.7	87.1	75.1	0.04	0.04	-0.02	-0.02	6.8	6.4	251.7	250.0	214.4	212.9
47	87.5	85.0	87.1	75.1	-0.13	-0.12	0.02	0.02	7.2	6.5	414.3	417.1	211.5	212.9
Avg.	87.1	84.3	87.0	74.5	-0.15	-0.13	0.00	0.00	7.1	6.9	358.3	362.0	212.8	212.9
Std Dv	0.6	0.7	0.5	0.9	0.60	0.57	0.14	0.14	0.3	0.6	154.0	170.6	9.5	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 102 KTS														
51	89.2	86.0	89.6	75.9	0.73	0.68	-0.22	-0.22	7.4	7.5	370.6	346.0	228.1	212.9
52	88.5	85.3	88.9	75.4	0.59	0.57	-0.18	-0.19	7.1	7.3	277.0	261.3	225.8	212.9
56	87.2	84.0	88.3	75.2	-0.01	-0.01	0.00	0.00	6.5	6.4	250.3	250.1	213.1	212.9
Avg.	88.3	85.1	88.9	75.5	0.44	0.41	-0.13	-0.14	7.0	7.1	299.3	285.8	222.3	212.9
Std Dv	1.5	1.4	0.9	0.6	0.56	0.52	0.17	0.17	0.6	0.8	89.4	74.2	11.4	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 116 KTS														
54	89.6	86.5	90.1	77.0	0.35	0.35	-0.11	-0.11	6.8	6.7	281.1	271.1	220.8	212.9
57	90.4	87.2	90.2	76.9	0.93	0.89	-0.31	-0.31	7.9	7.8	297.5	271.8	233.1	212.9
58	87.9	84.7	88.6	75.2	-0.13	-0.12	0.03	0.03	7.1	7.3	253.0	255.5	210.8	212.9
Avg.	89.3	86.1	89.6	76.4	0.39	0.37	-0.13	-0.13	7.3	7.3	277.2	266.1	221.6	212.9
Std Dv	1.8	1.9	1.2	1.4	0.75	0.71	0.24	0.24	0.8	0.7	31.8	13.0	15.8	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
17	90.2	87.6	92.4	79.2	-0.11	-0.09	-0.04	-0.04	6.4	6.8	633.0	624.6	215.8	212.9
18	91.5	88.4	92.0	78.3	0.70	0.67	-0.26	-0.26	7.4	7.5	600.8	554.6	230.7	212.9
19	90.2	87.5	90.0	78.2	-0.19	-0.16	0.01	0.01	7.8	7.1	266.8	267.8	212.2	212.9
20											NO TRACKING DATA			
62											NO TRACKING DATA			
63	90.3	87.5	90.8	78.2	0.28	0.27	-0.09	-0.09	7.5	7.3	225.7	219.4	219.1	212.9
Avg.	90.6	87.7	91.3	78.5	0.17	0.17	-0.09	-0.09	7.3	7.2	431.6	416.6	219.4	212.9
Std Dv	0.8	0.5	1.3	0.6	0.50	0.47	0.14	0.14	0.8	0.4	263.4	248.3	9.8	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 145 KTS														
48											NO TRACKING DATA			
49	93.5	90.2	94.1	81.0	0.80	0.75	-0.23	-0.22	7.7	7.5	760.8	710.2	228.1	212.9
50	94.1	90.1	95.9	80.9	-0.29	-0.26	0.07	0.07	6.5	7.1	406.0	415.6	208.0	212.9
59	92.7	89.5	92.8	79.8	-0.23	-0.21	0.07	0.07	7.8	7.7	248.1	253.0	208.8	212.9
60	93.6	89.6	95.7	82.1	0.23	0.22	-0.07	-0.06	7.0	6.5	662.2	647.3	217.9	212.9
61	92.4	89.4	92.7	79.6	-0.35	-0.32	0.10	0.10	7.6	7.5	248.8	256.5	206.6	212.9
Avg.	93.3	89.8	94.2	80.7	0.03	0.04	-0.01	-0.01	7.3	7.3	465.2	456.5	213.9	212.9
Std Dv	0.8	0.4	1.8	1.2	0.56	0.52	0.16	0.15	0.6	0.6	273.0	247.6	10.5	0.0

TABLE NO. B.3-3.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

BOT/TSC
12/21/81

CORRECTION DATA

SITE: 4 SIDELINE - 164 M. NORTH

JUNE 24, 1980

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNL TM	GBAN	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
9	91.2	88.5	91.5	79.8	-0.03	-0.02	-0.03	-0.03	7.7	7.0	177.5	176.0	176.5	175.0
10	92.4	88.9	93.2	79.9	0.67	0.64	-0.26	-0.25	7.6	7.4	190.9	176.7	189.1	175.0
15	90.5	87.5	91.4	78.8	-0.25	-0.21	0.00	0.00	7.7	7.5	668.1	667.3	175.2	175.0
16	90.1	87.1	92.1	78.2	0.32	0.35	-0.15	-0.17	6.7	7.4	422.2	400.6	184.4	175.0
Avg.	91.0	88.0	92.0	79.2	0.18	0.19	-0.11	-0.11	7.4	7.3	364.7	355.2	181.3	175.0
Std Dv	1.3	1.0	1.0	1.0	0.49	0.46	0.15	0.14	0.6	0.2	283.4	285.9	8.1	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
7											NO TRACKING DATA			
8	90.5	87.5	89.7	76.8	0.22	0.22	-0.14	-0.13	8.0	7.8	475.6	457.3	270.2	259.8
13	89.3	86.6	88.9	76.2	-0.49	-0.47	0.10	0.10	7.6	7.6	313.5	322.7	252.4	259.8
14	90.1	87.1	89.5	77.6	0.33	0.33	-0.18	-0.17	7.7	6.9	989.1	936.1	274.5	259.8
Avg.	90.0	87.1	89.4	76.9	0.02	0.03	-0.07	-0.07	7.8	7.4	592.7	572.1	265.7	259.8
Std Dv	0.9	0.6	0.6	1.0	0.63	0.61	0.21	0.21	0.3	0.7	302.8	456.0	16.6	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
2	89.7	86.9	88.4	75.1	0.26	0.29	-0.17	-0.18	7.7	7.8	867.1	823.1	356.7	338.6
3	87.7	84.9	88.6	74.7	-0.45	-0.42	0.06	0.06	6.9	7.2	429.8	438.2	332.1	338.6
4	88.5	85.9	86.7	73.7	-0.33	-0.23	-0.01	-0.01	8.0	7.8	799.8	796.5	340.0	338.6
42											NO TRACKING DATA			
43	87.4	84.4	89.1	74.9	-0.28	-0.27	0.05	0.06	6.4	7.0	422.7	430.9	332.1	338.6
44											NO TRACKING DATA			
45	87.2	84.1	89.1	74.7	-0.10	-0.09	0.01	0.01	6.5	7.3	453.7	455.1	337.6	338.6
Avg.	88.1	85.2	88.4	74.6	-0.18	-0.14	-0.01	-0.01	7.1	7.4	594.6	588.8	339.7	338.6
Std Dv	1.2	1.3	1.1	0.6	0.32	0.31	0.11	0.11	0.8	0.5	253.6	233.5	11.7	0.0
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
5	84.6	82.1	85.4	71.2	-0.30	-0.23	0.00	0.00	6.6	7.0	651.2	650.4	480.6	480.0
6	88.0	85.0	86.9	73.0	0.42	0.43	-0.21	-0.21	7.4	7.6	1050.7	984.5	512.3	480.0
11	84.6	82.1	85.6	70.7	-0.18	-0.12	-0.02	-0.03	6.5	7.1	681.2	675.6	484.0	480.0
12											NO TRACKING DATA			
Avg.	85.7	83.0	85.9	71.7	-0.02	0.03	-0.08	-0.08	6.8	7.2	794.4	770.2	492.3	480.0
Std Dv	2.8	2.4	1.2	1.7	0.55	0.50	0.16	0.16	0.7	0.4	182.5	152.6	24.6	0.0

TABLE NO. B.3-1.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PHLTM	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
SITE: 5 SIDELINE - 150 M. SOUTH JUNE 24, 1980														
APPROACH														
24	93.4	90.6	92.6	79.1	-0.21	-0.19	0.05	0.05	7.0	7.5	189.7	192.6	188.1	191.0
26	95.1	92.7	95.9	84.6	0.30	0.30	-0.11	-0.10	6.6	6.0	355.4	341.9	198.5	191.0
28	95.4	93.1	94.8	82.4	0.25	0.25	-0.11	-0.10	8.0	7.4	243.1	235.4	197.2	191.0
32	95.3	92.9	95.0	82.5	-0.05	-0.04	-0.01	-0.01	7.2	7.3	251.0	250.3	191.5	191.0
34	94.7	92.3	94.6	82.5	0.01	0.02	-0.03	-0.03	7.5	7.4	277.6	275.1	192.7	191.0
36	93.4	90.8	92.4	79.7	0.42	0.40	-0.15	-0.15	7.6	7.4	238.9	228.0	200.0	191.0
38	93.6	91.1	95.0	82.1	0.04	0.04	-0.03	-0.03	6.4	6.4	242.3	240.1	192.8	191.0
40	92.6	89.8	91.5	78.6	-0.24	-0.22	0.06	0.06	7.0	6.9	187.8	191.7	187.1	191.0
64	90.1	86.8	91.1	77.9	-0.07	-0.06	0.02	0.02	6.9	6.7	190.3	191.4	189.9	191.0
Avg.	93.7	91.1	93.7	81.0	0.05	0.06	-0.03	-0.03	7.2	7.0	241.8	238.5	193.1	191.0
Std Dv	1.8	2.1	1.9	2.5	0.24	0.23	0.08	0.08	0.5	0.6	56.8	51.8	4.9	0.0
TAKEOFF														
23	91.7	88.5	91.7	78.3	-1.81	-1.70	0.61	0.60	8.1	8.0	172.1	204.8	170.8	203.1
25	90.9	87.9	92.0	78.4	-1.99	-1.86	0.59	0.60	7.4	7.5	194.1	234.0	169.0	203.1
27	90.6	87.3	91.2	77.9	-1.88	-1.76	0.57	0.56	7.7	7.7	213.3	232.6	171.4	203.1
29	91.6	88.4	92.5	78.5	-1.57	-1.48	0.49	0.51	7.5	7.8	175.0	203.4	174.7	203.1
31	91.4	88.2	92.5	78.5	-1.34	-1.27	0.40	0.43	7.2	7.7	178.8	203.3	178.6	203.1
33	91.9	88.7	93.6	79.7	-1.39	-1.32	0.40	0.42	6.9	7.3	179.4	204.9	177.8	203.1
35	91.3	88.1	91.6	78.1	-1.69	-1.60	0.54	0.55	7.6	7.8	175.2	206.2	172.5	203.1
37	90.6	87.4	91.1	77.6	-1.64	-1.55	0.53	0.54	7.7	7.9	173.3	203.1	173.2	203.1
41	91.2	88.1	92.0	78.4	-1.66	-1.57	0.52	0.53	7.5	7.7	182.7	214.0	173.5	203.1
Avg.	91.2	88.1	92.0	78.4	-1.66	-1.57	0.52	0.53	7.5	7.7	182.7	214.0	173.5	203.1
Std Dv	0.5	0.5	0.9	0.7	0.25	0.22	0.09	0.07	0.4	0.2	15.4	20.3	3.6	0.0

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-2.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOI/TSC
12/21/81

CORRECTION DATA

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

EV	CORRECTED			CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	dBAN	$\wedge(1(P) \wedge(1(A) \wedge(2(P) \wedge(2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	(ACTUAL)	(REFERENCE)
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS													
21	88.2	84.9	88.3	74.8	1.00	0.91	-0.32	-0.32	7.4	7.5	614.5	556.4	235.2
22	88.5	86.0	84.8	74.1	0.16	0.16	-0.08	-0.09	7.6	7.7	218.5	212.9	218.5
46	-	85.4	90.5	77.6	0.35	0.34	-	-0.11	-	6.8	247.9	238.7	221.0
47	88.1	85.1	88.3	75.4	1.36	1.27	-0.42	-0.41	7.4	7.3	254.3	223.1	242.7
Avg.	88.3	85.4	88.5	75.5	0.72	0.67	-0.27	-0.23	7.5	7.3	333.8	307.8	229.3
Std Dv	0.3	0.6	1.8	1.9	0.69	0.63	0.25	0.19	0.2	0.5	230.0	203.4	14.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS													
51	88.7	85.8	88.5	73.8	1.09	1.02	-0.33	-0.32	7.2	7.1	255.7	230.2	236.5
52	88.6	85.9	90.4	76.8	0.38	0.37	-0.11	-0.11	6.4	6.8	299.5	288.2	221.2
53	87.6	84.5	87.5	74.9	1.02	0.96	-0.31	-0.30	7.3	7.0	256.1	232.2	234.8
56	87.9	85.4	89.4	75.6	0.35	0.34	-0.11	-0.11	6.8	6.9	294.7	284.4	220.7
Avg.	88.2	85.4	89.0	75.8	0.71	0.67	-0.21	-0.21	6.9	6.9	276.5	258.7	228.3
Std Dv	0.7	0.8	1.5	1.0	0.49	0.45	0.15	0.14	0.5	0.2	29.2	39.0	10.5
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS													
54	90.0	87.6	90.8	77.1	0.49	0.47	-0.15	-0.16	6.9	7.6	278.5	265.3	223.5
55	87.9	84.8	87.2	74.8	0.43	0.40	-0.14	-0.13	7.8	7.3	284.1	272.6	222.0
57	87.2	84.1	87.3	74.2	0.43	0.39	-0.13	-0.13	7.4	7.3	534.3	513.6	221.5
58	88.7	86.4	89.4	76.4	0.46	0.44	-0.14	-0.14	7.3	7.1	286.1	273.4	222.8
Avg.	88.5	85.7	88.7	75.6	0.45	0.42	-0.14	-0.14	7.4	7.3	345.8	331.2	222.5
Std Dv	1.5	1.9	2.1	1.7	0.04	0.05	0.01	0.02	0.4	0.3	154.0	149.0	1.1
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS													
17	91.7	88.3	93.8	79.2	1.26	1.20	-0.40	-0.43	7.0	7.6	433.8	380.7	242.6
18	90.7	86.4	91.7	79.4	0.08	0.10	-0.09	-0.09	7.3	7.2	697.8	677.7	219.2
19	91.4	87.9	95.3	80.7	0.77	0.73	-0.22	-0.24	5.9	6.6	416.0	382.0	231.9
20	90.3	87.8	90.9	78.0	0.15	0.14	-0.05	-0.05	7.4	7.5	293.4	286.8	216.3
62	90.5	87.2	92.4	77.9	1.09	1.03	-0.31	-0.34	7.2	7.8	420.4	380.6	235.2
Avg.	90.9	87.9	92.8	79.0	0.67	0.64	-0.21	-0.23	6.9	7.3	452.3	422.0	229.1
Std Dv	0.7	0.5	2.0	1.3	0.62	0.58	0.17	0.19	0.7	0.6	171.5	171.4	12.7
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS													
48	93.7	90.1	95.8	81.1	0.88	0.82	-0.22	-0.25	6.6	7.3	528.1	488.6	230.2
49	90.6	87.8	91.2	78.4	-0.51	-0.46	0.14	0.14	7.6	7.4	532.6	555.7	204.1
59	91.2	87.7	93.1	77.9	-0.93	-0.92	0.00	0.00	7.0	7.9	387.1	386.9	213.0
60	92.8	89.9	94.0	80.4	0.22	0.21	-0.07	-0.07	7.0	7.5	577.4	565.0	217.6
61	92.2	88.6	95.7	81.6	0.28	0.27	-0.08	-0.08	6.3	6.5	524.0	509.8	218.9
Avg.	92.2	88.8	94.0	79.9	0.17	0.16	-0.05	-0.05	6.9	7.3	509.8	501.2	216.7
Std Dv	1.4	1.3	2.2	1.9	0.58	0.54	0.15	0.16	0.6	0.6	83.0	82.3	10.9

NO TRACKING DATA

NO TRACKING DATA

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/79C
12/21/81

CORRECTION DATA

5:3115

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

EV	CORRECTED			CORRECTIONS (dB)					CONSTANTS		TRACKING DATA (ACTUAL)			TRACKING DATA (REFERENCE)		
	EPNL	NEL	PW/LTH	DBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR		
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS																
9	91.1	87.5	92.5	78.9	0.66	0.54	-0.22	-0.23	7.7	7.8	401.8	375.8	187.1	175.0		
10	92.4	50.0	92.3	79.9	-0.22	-0.24	0.05	0.05	8.1	8.0	182.0	184.7	172.4	175.0		
15	90.9	87.5	94.0	79.5	0.39	0.39	-0.14	-0.15	6.1	6.7	378.5	359.6	184.2	175.0		
16	91.1	88.8	91.2	79.4	-0.56	-0.44	0.11	0.10	8.1	7.6	221.2	228.2	169.6	175.0		
Avg.	91.4	88.4	92.5	79.4	0.07	0.06	-0.05	-0.06	7.5	7.5	295.9	287.1	178.3	175.0		
Std Dv	0.9	1.5	1.4	0.5	0.68	0.58	0.19	0.19	1.2	0.7	135.3	116.3	10.6	0.0		
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS																
7																
8	90.2	87.7	90.4	77.8	0.11	-0.05	-0.03	-0.03	7.1	7.2	336.1	332.9	262.3	259.8		
13	90.4	86.9	92.2	79.4	0.44	0.44	-0.19	-0.18	6.8	6.5	801.6	752.5	276.7	259.8		
14	89.4	87.1	89.0	76.7	-0.22	-0.21	0.02	0.02	7.4	7.3	336.9	338.5	258.5	259.8		
Avg.	90.0	87.2	90.5	78.0	0.11	0.06	-0.07	-0.06	7.1	7.0	491.5	474.6	265.8	259.8		
Std Dv	0.8	0.6	2.3	1.9	0.47	0.48	0.16	0.15	0.4	0.6	379.8	340.3	13.6	0.0		
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS																
2	89.5	86.7	88.7	74.6	0.19	0.13	-0.10	-0.10	7.3	7.9	450.0	436.5	349.1	338.6		
3	89.6	86.0	91.1	76.8	1.54	1.34	-0.44	-0.46	7.0	7.4	767.4	664.8	390.8	338.6		
4	88.6	85.9	88.1	74.1	-0.10	-0.20	0.01	0.01	7.2	7.8	450.6	452.1	337.5	338.6		
42	89.8	86.9	89.6	76.5	0.29	0.28	-0.09	-0.10	6.7	6.9	562.0	544.1	349.8	338.6		
43	90.3	86.9	90.6	77.6	1.05	0.97	-0.29	-0.27	7.6	7.3	1453.3	1333.2	349.1	338.6		
44	88.4	85.4	89.1	75.4	0.20	0.19	-0.07	-0.07	6.9	7.2	389.3	380.2	346.7	338.6		
45	89.4	86.0	89.5	76.4	0.89	0.78	-0.23	-0.22	7.2	7.0	992.0	921.2	364.6	338.6		
Avg.	89.4	86.3	89.5	75.9	0.58	0.50	-0.17	-0.17	7.1	7.3	723.5	676.0	358.2	338.6		
Std Dv	0.7	0.6	1.2	1.4	0.65	0.60	0.17	0.17	0.3	0.4	240.4	233.5	19.7	0.0		
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS																
5	87.1	83.6	86.6	72.9	1.92	1.49	-0.51	-0.50	7.7	7.6	1282.9	1102.4	558.6	480.0		
6	87.4	84.4	85.9	71.9	0.40	0.12	-0.09	-0.09	8.0	8.0	538.8	524.7	492.9	480.0		
11	86.0	82.7	85.4	71.6	1.39	1.32	-0.46	-0.48	7.7	7.5	848.3	738.3	551.5	480.0		
12																
Avg.	86.8	83.6	86.0	72.1	1.24	0.98	-0.35	-0.36	7.8	7.8	890.0	788.5	534.3	480.0		
Std Dv	1.1	1.2	0.8	1.0	1.09	1.06	0.32	0.33	0.2	0.3	353.7	268.5	51.0	0.0		
NO TRACKING DATA																

TABLE NO. B.3-2.56

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

JUNE 24, 1980

SITE: 56 SIBELINE - 15C H. SOUTH (FLUSH)

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPML	MEL	PMLTH	dBAM	$\wedge/1(P) \wedge/1(A)$	$\wedge/2(P) \wedge/2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	(ACTUAL)	(REFERENCE)
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS														
21	91.1	87.9	91.5	79.5	1.00	0.91	-0.31	-0.29	7.3	6.7	585.9	530.8	236.0	213.8
22	91.5	88.7	90.9	78.1	0.11	0.14	-0.08	-0.08	7.5	7.5	229.5	223.6	219.4	213.8
46	92.4	89.4	94.4	81.1	0.36	0.34	-0.11	-0.10	6.6	6.5	248.6	239.5	221.9	213.8
47	91.5	88.5	92.5	79.9	1.44	1.29	-0.42	-0.40	7.4	7.0	255.1	224.0	243.6	213.8
Avg.	91.6	88.6	92.3	79.6	0.73	0.67	-0.23	-0.22	7.2	6.9	329.8	304.5	230.2	213.8
Std Dv	0.7	0.8	1.8	1.5	0.74	0.64	0.20	0.19	0.5	0.5	209.5	185.0	14.1	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS														
51	91.3	88.5	92.3	79.8	1.10	1.04	-0.33	-0.32	7.2	7.0	256.5	231.0	237.4	213.8
52	92.2	89.4	93.9	80.3	0.42	0.38	-0.11	-0.12	6.8	7.2	300.1	288.9	222.1	213.8
53									NO TRACKING DATA					
56	91.5	88.7	92.5	79.4	0.38	0.35	-0.11	-0.11	7.4	7.4	276.6	257.0	221.5	213.8
Avg.	91.7	88.8	92.9	79.9	0.63	0.59	-0.18	-0.18	7.1	7.2	277.8	262.3	227.0	213.8
Std Dv	0.7	0.7	1.2	0.6	0.57	0.55	0.18	0.17	0.4	0.3	30.8	41.3	12.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS														
54									NO TRACKING DATA					
55	91.0	88.0	91.2	79.4	0.42	0.40	-0.13	-0.13	7.5	7.2	234.0	224.5	222.9	213.8
57	90.5	87.7	91.1	79.2	0.41	0.38	-0.13	-0.12	7.3	6.7	226.8	218.0	222.5	213.8
58	92.1	89.4	93.5	80.8	0.48	0.44	-0.14	-0.13	6.9	6.9	251.6	240.5	223.7	213.8
Avg.	91.2	88.4	91.9	79.8	0.44	0.41	-0.13	-0.13	7.2	6.9	237.5	227.7	223.0	213.8
Std Dv	1.2	1.3	1.9	1.2	0.05	0.04	0.01	0.01	0.4	0.3	18.1	16.4	0.9	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS														
17	95.0	91.7	97.3	84.1	1.31	1.21	-0.39	-0.39	6.9	6.8	361.9	317.8	243.5	213.8
18	93.7	91.1	94.4	82.4	0.13	0.15	-0.10	-0.09	7.8	7.2	247.7	240.5	220.2	213.8
19	95.0	91.9	98.0	84.2	0.76	0.73	-0.24	-0.26	6.5	7.1	455.5	418.5	232.7	213.8
20									NO TRACKING DATA					
62	93.4	90.6	94.3	81.9	0.15	0.14	-0.05	-0.05	7.6	7.4	269.0	264.8	217.2	213.8
63	94.3	91.1	96.2	82.7	1.23	1.11	-0.32	-0.32	7.4	7.6	458.1	414.8	236.1	213.8
Avg.	94.3	91.3	96.0	83.1	0.72	0.67	-0.22	-0.22	7.2	7.2	358.5	331.3	229.9	213.8
Std Dv	0.8	0.6	1.9	1.2	0.65	0.59	0.17	0.17	0.6	0.3	114.9	95.6	12.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS														
48	96.1	93.1	97.8	84.9	0.07	0.08	-0.04	-0.03	7.6	7.3	288.7	285.6	214.1	213.8
49	96.5	93.1	99.1	84.4	0.98	0.86	-0.23	-0.24	6.7	7.2	486.7	456.4	231.0	213.8
50	95.3	92.4	96.5	84.5	-0.52	-0.47	0.14	0.13	7.6	6.8	235.4	245.6	204.9	213.8
59	94.6	91.2	97.3	83.2	-0.05	-0.03	0.00	0.00	6.7	7.1	349.5	349.4	213.9	213.8
60	95.6	92.5	98.0	84.1	0.22	0.21	-0.07	-0.07	7.0	7.5	331.5	324.4	218.5	213.8
61	95.4	91.9	98.3	84.1	0.28	0.27	-0.08	-0.09	7.0	7.6	524.3	510.2	219.7	213.8
Avg.	95.6	92.4	97.8	84.2	0.16	0.15	-0.05	-0.05	7.1	7.3	349.4	360.9	217.4	213.8
Std Dv	0.7	0.8	1.0	0.6	0.35	0.49	0.13	0.14	0.5	0.3	126.5	112.6	9.5	0.0

TABLE NO. B.3-3.5G

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/ISC
12/22/81

CORRECTION DATA

SITE: 5G				SIDELINE - 150 M. SOUTH (FLUSH)				JUNE 24, 1980				
CORRECTED					CORRECTIONS (dB)				TRACKING DATA (METERS) (ACTUAL)			
EV	EPNL	MEL	PNLTH	dBAM	$\wedge(1(P) \wedge 1(A) \wedge 2(F) \wedge 2(A))$	CONSTANTS	SR	CFA	SRR	CPAR		
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS												
9	94.3	90.8	96.6	83.3	0.51 -0.21	7.2	293.7	274.7	187.8	175.6		
10	94.9	91.8	97.3	84.8	-0.33 -0.29	6.6	182.6	185.3	173.1	175.6		
15	94.1	90.7	97.8	82.8	0.32 -0.14	6.3	341.4	324.3	184.9	175.6		
16	94.4	91.2	96.8	83.6	-0.55 -0.09	6.7	200.1	206.4	170.3	175.6		
Avg.	94.4	91.1	97.1	82.6	-0.01 -0.05	6.7	254.4	247.7	179.0	175.6		
Std Dev	0.4	0.6	0.7	1.0	0.62 0.18	0.5	92.7	78.1	10.5	0.0		
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS												
7	NO TRACKING DATA											
8	92.6	90.0	92.9	80.3	-0.18 -0.03	7.1	318.7	315.7	263.3	260.8		
13	93.8	90.8	95.9	82.3	0.42 -0.19	7.0	464.9	436.6	277.7	260.8		
14	91.7	89.3	92.1	79.8	-0.44 -0.02	7.4	414.3	416.2	259.6	260.8		
Avg.	92.7	90.0	93.7	80.8	-0.07 -0.07	7.2	399.3	389.5	264.8	260.8		
Std Dev	1.5	1.1	2.9	1.9	0.62 0.16	0.3	105.0	91.5	13.5	0.0		
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS												
1	NO TRACKING DATA											
2	91.5	88.9	90.7	77.8	0.07 0.05	7.7	451.2	437.8	350.1	339.7		
3	92.6	89.6	93.3	80.0	1.39 -0.47	7.6	811.9	703.8	391.8	339.7		
4	91.1	88.5	90.6	77.8	-0.33 -0.01	7.5	528.2	529.9	338.6	339.7		
42	92.2	89.3	92.9	79.7	0.29 -0.10	7.1	562.7	544.8	350.8	339.7		
43	93.4	90.4	93.3	80.3	1.04 -0.29	7.9	1097.0	1007.7	369.8	339.7		
44	91.0	88.3	91.7	78.6	0.20 -0.07	7.3	411.0	401.4	347.8	339.7		
45	92.8	89.7	92.9	79.8	0.89 -0.23	7.2	992.4	921.9	365.6	339.7		
Avg.	92.1	89.2	92.2	79.2	0.51 -0.18	7.5	693.5	649.6	359.2	339.7		
Std Dev	1.0	0.8	1.3	1.2	0.67 0.18	0.3	198.5	204.4	19.6	0.0		
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS												
5	89.8	87.1	89.9	77.2	1.48 -0.50	7.6	681.1	585.6	559.6	481.2		
6	89.6	86.9	88.0	74.7	0.01 -0.09	7.9	620.0	603.7	494.1	481.2		
11	89.0	86.4	89.1	76.9	1.39 -0.44	7.4	849.6	739.8	552.6	481.2		
12	NO TRACKING DATA											
Avg.	89.4	86.8	88.9	76.3	0.96 -0.34	7.6	716.9	643.0	535.4	481.2		
Std Dev	0.6	0.6	1.2	2.0	1.17 0.31	0.4	168.2	119.2	50.9	0.0		

TABLE NO. B.3-1.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/22/81

CORRECTION DATA

SIDELINE - 284 M. NORTH

JUNE 24, 1980

SITE: 6

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLIM	CBAM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
24	91.5	89.2	92.5	78.9	0.25	0.25	-0.09	-0.10	6.4	7.1	323.0	312.6	317.7	307.4
26	92.1	89.1	93.4	79.5	0.76	0.71	-0.22	-0.24	6.4	6.8	334.3	308.6	332.9	307.4
28	89.1	86.9	87.4	74.9	-0.30	-0.26	0.06	0.06	7.3	7.4	308.8	314.8	301.5	307.4
32	88.4	85.9	85.9	73.3	-0.17	-0.14	0.02	0.02	7.7	7.8	363.6	365.4	305.9	307.4
34	88.5	84.2	87.3	74.7	-0.10	-0.08	0.00	0.00	7.1	7.1	310.0	310.5	306.9	307.4
36	90.0	87.9	89.3	74.8	-0.05	-0.03	-0.01	-0.01	7.1	7.3	308.6	307.8	308.2	307.4
38	88.8	84.1	87.1	74.8	-0.23	-0.21	0.03	0.02	7.5	7.2	506.8	504.7	305.0	307.4
40	90.1	88.1	89.1	78.0	0.06	0.07	-0.04	-0.04	7.6	7.3	347.9	343.6	311.3	307.4
64	87.7	84.0	90.1	77.7	-0.13	-0.11	0.03	0.03	6.5	6.1	307.7	310.7	304.4	307.4
Avg.	89.6	87.3	89.1	76.5	0.01	0.02	-0.02	-0.03	7.1	7.1	345.0	342.1	310.4	307.4
Std Dv	1.6	1.4	2.7	2.3	0.35	0.32	0.09	0.10	0.6	0.5	66.0	68.5	10.3	0.0
TAKEOFF														
23											NO TRACKING DATA			
25	88.1	85.6	89.3	76.9	-1.16	-0.99	0.23	0.22	6.8	6.7	374.6	404.6	291.7	315.1
27	87.7	85.2	88.3	75.6	-1.00	-0.94	0.24	0.23	7.0	6.7	318.2	344.7	290.9	315.1
29	-	84.6	88.3	75.4	-0.85	-0.78	-	0.21	-	7.1	294.4	315.2	294.3	315.1
31	88.3	85.7	88.8	75.9	-0.86	-0.80	0.22	0.21	7.5	7.3	309.4	330.9	294.6	315.1
33	88.1	85.6	87.4	74.6	-0.92	-0.85	0.25	0.25	7.7	7.8	314.9	339.2	292.5	315.1
35	87.6	85.1	87.9	74.9	-1.09	-1.00	0.29	0.28	7.5	7.4	314.9	344.0	288.4	315.1
37	88.9	86.6	89.3	76.7	-0.80	-0.75	0.20	0.19	7.3	7.2	329.6	350.8	296.0	315.1
39											NO TRACKING DATA			
41	88.1	85.5	88.5	75.7	-0.74	-0.69	0.20	0.20	7.5	7.6	309.7	328.9	296.7	315.1
Avg.	88.1	85.5	88.5	75.7	-0.93	-0.85	0.23	0.22	7.1	7.2	320.7	344.8	293.1	315.1
Std Dv	0.4	0.6	0.7	0.8	0.16	0.12	0.03	0.03	0.3	0.4	25.8	28.8	3.0	0.0

TABLE NO. E.3-2.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/22/81

CORRECTION DATA

		SITE: 6		SIDELINE - 284 M. NORTH		JUNE 24, 1980					
		CORRECTED		CORRECTIONS (dB)		CONSTANTS		TRACKING DATA (ACTUAL)		TRACKING DATA (METERS) (REFERENCE)	
EV	EPNL	NEL	PWLTN	GBAN	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CFA	SRR	CFAR
500 FT. FLYBY - TARGET INDICATED AIRSPEED 87 KTS											
21	83.7	81.0	82.6	70.0	0.08	0.08	-0.07	-0.07	7.1	6.9	NO TRACKING DATA
22	83.4	80.6	83.2	70.2	-0.09	-0.08	0.01	0.01	7.9	6.8	342.8 335.3 328.7 321.5
46	85.3	83.1	85.1	73.1	-0.47	-0.42	0.10	0.09	6.5	6.2	334.5 335.6 320.5 321.5
47	84.1	81.6	83.7	71.1	-0.16	-0.14	0.01	0.01	6.9	6.7	482.6 499.7 310.5 321.5
Avs.	Std Dv	1.4	1.9	2.4	0.40	0.36	0.12	0.11	0.4	0.5	386.6 390.2 319.9 321.5
500 FT. FLYBY - TARGET INDICATED AIRSPEED 102 KTS											
51	84.9	82.4	83.6	71.4	0.23	0.22	-0.08	-0.07	7.6	7.3	359.6 351.3 329.1 321.5
52	83.3	80.4	82.0	69.1	-0.15	-0.14	0.03	0.03	7.1	7.2	319.6 323.1 318.0 321.5
53	85.3	82.8	83.8	70.6	0.18	0.17	-0.06	-0.06	7.4	7.7	541.5 531.8 327.4 321.5
56	-	80.2	82.4	68.8	-0.11	-0.10	-	0.02	-	7.4	324.4 326.7 319.3 321.5
Avs.	Std Dv	1.5	1.6	1.1	0.04	0.04	-0.04	-0.02	7.4	7.4	386.2 383.2 323.4 321.5
					0.24	0.23	0.08	0.06	0.3	0.2	128.6 122.3 6.9 0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 116 KTS											
54	-	83.3	84.8	72.8	0.14	0.13	-	-0.05	-	7.2	NO TRACKING DATA
55	85.7	83.2	84.2	71.9	0.56	0.52	-0.17	-0.17	7.7	7.6	396.8 390.8 326.4 321.5
58	84.0	81.0	82.7	69.0	-0.21	-0.19	0.05	0.06	7.6	8.0	376.8 357.7 338.7 321.5
Avs.	Std Dv	1.2	1.8	1.6	0.16	0.15	-0.06	-0.05	7.7	7.6	322.6 327.7 316.4 321.5
					0.55	0.50	0.16	0.16	0.1	0.6	365.4 358.8 327.2 321.5
500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS											
17	87.3	85.0	88.3	75.5	-0.67	-0.61	0.06	0.06	4.6	6.8	948.6 968.7 314.8 321.5
18	86.7	84.0	85.5	73.0	0.23	0.27	-0.16	-0.15	7.9	7.6	598.9 571.6 336.9 321.5
19	88.1	85.6	86.6	74.5	-0.41	-0.38	0.07	0.07	8.0	7.8	345.2 352.6 314.8 321.5
20	88.8	86.3	88.0	75.7	-0.06	-0.05	0.01	0.01	7.8	7.6	NO TRACKING DATA
42	87.7	85.2	87.1	74.7	-0.23	-0.19	-0.01	-0.00	7.6	7.5	NO TRACKING DATA
Avs.	Std Dv	1.1	1.2	1.5	0.48	0.47	0.13	0.12	0.8	0.5	356.4 357.4 320.6 321.5
					0.48	0.47	0.13	0.12	7.6	7.5	562.3 562.6 321.8 321.5
500 FT. FLYBY - TARGET INDICATED AIRSPEED 145 KTS											
48	91.1	88.7	94.3	81.7	-0.08	-0.06	0.00	0.00	5.6	5.5	NO TRACKING DATA
49	88.8	84.7	90.2	76.6	-0.14	-0.12	0.02	0.02	6.7	6.2	1035.5 1034.7 321.8 321.5
50	89.3	84.8	89.2	76.6	-0.16	-0.15	0.04	0.04	7.5	7.2	810.9 816.3 319.4 321.5
59	88.7	84.8	88.7	73.5	0.09	0.08	-0.03	-0.04	7.9	8.1	337.6 341.8 317.6 321.5
60	88.9	86.4	88.6	76.6	-0.32	-0.30	0.08	0.07	7.6	6.8	629.2 622.9 324.8 321.5
61	89.4	86.3	90.2	77.0	-0.12	-0.11	0.02	0.02	7.1	6.8	400.7 410.8 313.6 321.5
Avs.	Std Dv	1.2	1.9	2.7	0.17	0.16	0.05	0.05	1.1	1.1	642.8 645.3 319.4 321.5
					0.17	0.16	0.05	0.05	1.1	1.1	245.0 242.8 4.9 0.0

TABLE NO. B-3-3.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DJT/TSC
12/22/81

CORRECTION DATA

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 24, 1980

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	MEL	PHLTH	GBAR	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
9	87.9	85.3	87.9	75.1	-0.27	-0.25	0.02	0.02	7.4	7.6	295.7	297.8	295.7	297.8
10	87.0	83.9	86.8	73.9	0.18	0.24	-0.14	-0.14	7.7	7.4	314.4	301.4	310.6	297.8
15	88.0	85.5	88.3	75.2	-0.25	-0.22	0.03	0.02	7.4	7.3	301.2	303.6	295.4	297.8
16	87.3	84.2	88.3	74.5	0.07	0.09	-0.10	-0.10	7.1	7.2	632.8	613.2	307.2	297.8
Avg.	87.6	84.7	87.8	74.7	-0.07	-0.04	-0.05	-0.05	7.4	7.4	386.0	379.0	302.2	297.8
Std Dev	0.6	1.0	0.9	0.7	0.28	0.29	0.10	0.10	0.3	0.2	201.7	191.3	9.6	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
7	86.5	83.6	85.6	72.8	0.10	0.10	-0.09	-0.09	7.3	7.2	399.2	387.9	364.6	354.3
13	86.4	83.7	86.9	74.0	-0.69	-0.63	0.12	0.12	6.9	7.0	397.4	413.5	340.5	354.3
14	86.9	84.0	86.1	72.7	0.21	0.23	-0.14	-0.14	7.1	7.4	823.9	788.1	370.4	354.3
Avg.	86.6	83.8	86.2	73.1	-0.13	-0.10	-0.04	-0.04	7.1	7.2	540.2	529.9	358.5	354.3
Std Dev	0.3	0.2	1.0	1.1	0.69	0.66	0.20	0.20	0.3	0.3	347.5	316.8	22.4	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
1	85.8	83.1	83.1	70.0	-0.15	-0.09	-0.08	-0.08	7.9	8.1	870.0	849.6	425.5	415.6
3	84.3	81.8	82.8	70.0	-1.55	-1.34	0.24	0.25	7.6	7.7	1379.5	1483.7	386.4	415.6
4	85.4	82.7	82.9	70.4	-0.21	-0.18	-0.02	-0.02	8.1	8.0	420.6	418.5	417.6	415.6
42	86.1	83.8	86.1	72.7	-0.69	-0.65	0.15	0.15	7.0	7.1	508.8	533.8	396.0	415.6
44	86.6	83.9	89.1	76.4	-0.54	-0.48	0.07	0.07	5.5	5.5	1312.1	1348.3	404.4	415.6
Avg.	85.7	83.1	84.8	71.9	-0.63	-0.55	0.07	0.07	7.2	7.3	898.2	926.8	406.0	415.6
Std Dev	1.0	1.0	3.2	3.2	0.65	0.57	0.15	0.15	1.2	1.2	356.2	373.6	18.3	0.0
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS														
5	79.6	79.2	79.2	66.5	-1.20	-1.09	-	0.24	-	8.2	676.9	723.4	502.6	537.1
6	85.6	82.7	85.9	72.2	0.37	0.40	-0.20	-0.20	6.9	7.1	1346.8	1260.7	573.8	537.1
11	82.5	80.0	80.8	67.8	-1.29	-1.04	0.16	0.16	7.2	7.4	1137.0	1195.5	510.8	537.1
12	84.0	80.7	82.0	68.8	-0.71	-0.58	-0.02	0.07	7.0	7.6	1053.6	1059.8	529.0	537.1
Std Dev	2.2	2.4	4.9	4.2	1.32	1.20	0.25	0.33	0.2	0.8	376.7	336.5	55.1	0.0

TABLE NO. B.4-1.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

SITE: 1				CENTERLINE - CENTER				JUNE 25, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	NEL	PNLTH	GBAM	$\wedge 1(F)$	$\wedge 1(A)$	$\wedge 2(F)$	$\wedge 2(A)$	K(P)	K(A)	SR	CFA	SRR	CPAR
APPROACH														
40	96.2	93.3	97.7	84.7	0.47	0.47	-0.18	-0.18	7.6	7.5	125.1	118.4	125.0	118.2
42	97.3	94.5	100.1	88.0	-0.61	-0.56	0.16	0.16	6.6	6.4	177.0	187.3	111.8	118.2
44	97.2	94.4	93.4	86.2	0.18	0.18	-0.07	-0.07	7.2	6.8	134.2	131.1	121.0	118.2
46	97.7	94.8	98.9	86.0	0.30	0.30	-0.10	-0.10	6.7	6.7	122.8	118.5	122.6	118.2
48	96.5	94.1	98.1	85.8	0.13	0.13	-0.05	-0.05	6.6	6.2	142.5	140.1	120.3	118.2
50									NO TRACKING DATA					
AVG.	97.0	94.2	98.6	86.2	0.09	0.10	-0.05	-0.05	6.9	6.7	146.3	139.1	120.1	118.2
Std Dv	0.7	0.7	1.1	1.4	0.48	0.45	0.15	0.15	0.5	0.6	25.4	32.9	5.8	0.0
TAKEOFF														
41	91.4	87.7	94.7	80.9	2.03	1.94	-0.64	-0.67	6.8	7.2	166.8	134.5	124.5	100.4
43	91.3	87.6	94.1	80.6	3.31	3.15	-1.09	-1.05	7.6	7.3	154.0	110.6	139.8	100.4
45									NO TRACKING DATA					
47	90.8	87.3	94.4	80.3	2.73	2.60	-0.81	-0.87	6.6	7.1	178.0	134.1	133.3	100.4
49	91.2	87.8	94.9	81.1	3.02	2.86	-0.93	-0.97	6.9	7.2	181.0	132.8	136.8	100.4
51	91.1	88.0	94.6	81.0	2.61	2.49	-0.80	-0.82	6.9	7.1	169.9	130.1	131.2	100.4
AVG.	91.2	87.7	94.6	80.8	2.74	2.61	-0.85	-0.88	7.0	7.2	169.9	128.4	133.1	100.4
Std Dv	0.3	0.3	0.3	0.4	0.56	0.52	0.19	0.17	0.4	0.1	12.3	11.7	6.8	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS														
18	88.9	86.1	91.3	78.4	-0.25	-0.22	0.03	0.03	6.9	7.0	227.3	229.2	149.9	151.2
19	88.1	85.3	92.1	78.7	0.16	0.21	-0.10	-0.10	6.1	6.5	207.4	200.1	156.7	151.2
20									NO TRACKING DATA					
21	88.3	85.4	92.1	78.9	-0.30	-0.27	0.04	0.04	6.7	6.7	225.2	228.2	149.2	151.2
22	88.8	86.2	91.7	79.1	-1.36	-1.15	0.28	0.27	6.3	6.1	180.4	199.9	136.5	151.2
23	87.9	85.2	91.0	79.0	0.73	0.73	-0.27	-0.27	7.2	7.0	231.2	211.8	165.0	151.2
AVG.	88.4	85.6	91.6	78.6	-0.20	-0.14	-0.00	-0.01	6.6	6.7	214.3	213.8	151.5	151.2
Std Dv	0.5	0.6	0.5	0.5	0.89	0.86	0.23	0.23	0.5	0.5	24.3	16.7	12.2	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS														
24									NO TRACKING DATA					
25	88.3	85.4	93.4	80.1	0.31	0.32	-0.12	-0.13	5.9	6.2	224.9	214.4	158.6	151.2
26	89.2	86.4	92.6	80.0	-0.59	-0.50	0.10	0.10	6.4	6.1	190.8	197.9	145.7	151.2
27	88.5	85.7	93.3	80.1	-0.15	-0.12	-0.01	-0.01	5.8	5.9	201.8	201.2	151.6	151.2
28	89.6	86.5	92.7	79.6	-0.50	-0.52	0.13	0.12	6.5	6.4	146.2	152.9	144.6	151.2
29	89.0	86.0	92.6	79.5	0.55	0.47	-0.17	-0.17	6.5	6.5	214.0	201.6	160.5	151.2
AVG.	88.9	86.0	92.9	79.9	-0.08	-0.07	-0.01	-0.02	6.2	6.2	195.5	193.6	152.2	151.2
Std Dv	0.6	0.5	0.4	0.3	0.57	0.53	0.15	0.15	0.4	0.3	35.1	27.3	8.4	0.0

TABLE NO. B.4-2.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 1072

SITE: 1				CENTERLINE - CENTER				JUNE 25-1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)				
EV	EPNL	NEL	PWLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
10	94.2	91.1	100.0	86.9	2.24	2.12	-0.59	-0.57	5.9	5.7	162.1	128.9	113.5	90.2
11	94.1	91.1	101.1	87.8	2.67	2.52	-0.62	-0.67	5.3	5.7	168.7	129.0	118.0	93.2
16	94.6	91.3	100.1	86.4	0.33	0.34	-0.11	-0.12	5.7	6.1	127.6	122.0	94.4	90.2
17											NO TRACKING DATA			
Avg.	94.3	91.2	100.4	87.0	1.75	1.66	-0.44	-0.45	5.6	5.8	152.8	126.6	108.6	90.2
Std Dev	0.4	0.1	0.8	0.9	1.76	1.64	0.40	0.41	0.4	0.3	31.2	5.7	17.7	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
8	89.7	87.4	92.4	80.4	0.14	0.18	-0.10	-0.10	6.8	6.6	306.7	296.0	219.8	212.1
9	88.2	85.7	91.3	79.3	1.15	1.09	-0.36	-0.36	6.9	6.8	302.8	268.4	239.4	212.1
14	88.4	85.9	90.6	78.4	0.36	0.40	-0.17	-0.17	6.9	6.9	306.9	290.0	224.5	212.1
15	86.9	84.3	90.1	77.7	0.64	0.64	-0.22	-0.24	6.5	6.8	336.3	310.8	229.8	212.1
Avg.	88.3	85.8	91.1	78.9	0.57	0.58	-0.21	-0.22	6.8	6.8	313.3	291.3	228.4	212.1
Std Dev	1.4	1.5	1.2	1.4	0.53	0.48	0.13	0.14	0.3	0.2	19.2	21.6	10.3	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
1	86.0	83.5	87.7	75.7	1.01	0.95	-0.34	-0.34	7.2	7.2	424.5	381.2	338.1	303.6
2	86.8	84.5	86.8	75.2	0.17	0.16	-0.12	-0.11	7.3	6.9	451.6	434.8	315.3	303.6
3	85.9	83.8	87.6	76.7	0.45	0.46	-0.21	-0.18	7.3	6.4	461.4	432.2	324.1	303.6
4	86.9	84.7	87.9	76.3	0.45	0.48	-0.21	-0.20	7.4	7.0	407.5	381.8	324.0	303.6
52	86.4	84.4	87.2	75.5	0.58	0.55	-0.19	-0.18	7.2	7.0	378.5	356.6	322.3	303.6
53	84.3	82.4	86.5	74.4	0.98	0.94	-0.27	-0.28	6.8	6.9	489.7	446.3	333.1	303.6
54	87.7	85.4	89.5	77.6	1.60	1.33	-0.31	-0.29	6.5	6.2	964.1	865.0	338.4	303.6
55	85.4	83.4	87.6	76.1	0.26	0.27	-0.11	-0.10	7.2	6.9	434.4	419.9	314.1	303.6
Avg.	86.2	84.0	87.6	75.9	0.69	0.64	-0.22	-0.21	7.1	6.8	501.5	464.7	326.2	303.6
Std Dev	1.1	1.0	1.0	1.1	0.52	0.43	0.09	0.09	0.3	0.4	80.2	178.0	10.2	0.0

JUNE 25, 1980

CENTERLINE - CENTER

SITE: 1

SIKORSKY S-76 SPIRIT HELICOPTER
CORRECTION DATA - MAIN ROTOR RPM 107Z

DOT/TSC
12/22/81

SITE: 1				CENTERLINE - CENTER				JUNE 25, 1980					
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	NEL	PNLIM	dBAM	$\wedge 1(F) \wedge 1(A)$	$\wedge 2(F)$	$\wedge 2(A)$	K(F)	K(A)	SR	CPA	SRR	CPAR
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
5	81.9	80.0	82.4	70.6	0.69	0.67	-0.27	7.3	7.4	813.2	747.3	456.2	456.0
6	81.9	80.3	82.5	71.0	0.75	0.74	-0.28	7.3	7.4	563.9	513.5	498.8	456.0
12										NO TRACKING DATA			
13	81.2	79.5	82.1	70.9	0.31	0.33	-0.19	7.3	7.2	648.6	611.0	484.1	456.0
38	82.9	81.2	82.5	71.5	0.14	0.11	-0.12	7.4	7.2	644.4	650.2	473.7	456.0
39	81.5	80.0	81.9	70.2	0.21	0.22	-0.16	7.6	7.6	787.0	750.9	477.9	456.0
Avg.	81.9	80.2	82.3	70.8	0.42	0.41	-0.20	7.4	7.4	691.4	649.0	486.1	456.0
Std Dev	0.7	0.7	0.3	0.6	0.32	0.32	0.08	0.2	0.2	121.5	115.7	12.7	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
34	81.2	79.3	80.6	69.4	-0.02	-0.13	-0.07	7.4	7.4	723.9	709.3	620.9	608.4
35	80.0	78.5	79.9	69.1	-0.09	-0.09	-0.09	7.2	7.0	849.2	825.5	625.8	608.4
36	-	78.5	79.3	68.1	0.18	0.13	-	-	7.2	846.4	810.2	635.5	608.4
37	79.5	77.7	78.8	67.9	0.29	0.27	-0.19	7.6	7.4	1105.9	1043.5	644.8	608.4
Avg.	80.3	78.5	79.7	68.6	0.09	0.05	-0.12	7.4	7.2	881.3	847.1	631.8	608.4
Std Dev	1.2	0.8	1.0	0.9	0.22	0.23	0.07	0.3	0.2	116.3	102.1	13.0	0.0
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS													
30	-									NO TRACKING DATA			
31	75.4	75.5	76.4	64.0	0.37	0.03	-0.12	-	7.7	924.8	894.6	788.2	760.8
32	79.3	77.4	77.3	66.3	-0.01	-0.39	-0.03	7.8	7.3	1029.6	1020.4	767.6	760.8
33	-	75.4	76.3	65.4	0.42	0.09	-0.13	-	7.0	1290.3	1236.7	793.7	760.8
Avg.	79.3	76.1	76.4	65.2	0.26	-0.09	-0.03	7.8	7.3	1082.2	1050.6	783.2	760.8
Std Dev	-	1.6	1.3	1.6	0.33	0.37	0.08	-	0.5	155.4	155.9	19.5	0.0

TABLE NO. B.5-2.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA														
SITE: 1				CENTERLINE - CENTER				JUNE 25, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)				
EV	EPNL	NEL	PWLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
56	100.3	96.5	104.7	91.4	0.81	0.78	-0.25	-0.25	6.7	6.6	153.1	140.5	98.3	90.2
57	99.7	95.8	104.3	90.9	0.87	0.83	-0.22	-0.23	5.7	6.0	139.5	127.6	98.7	90.2
58	101.0	97.5	106.0	92.4	1.28	1.23	-0.37	-0.41	6.6	7.1	254.0	222.7	102.9	90.2
59	99.4	95.8	103.3	90.0	0.97	0.94	-0.30	-0.31	6.8	7.0	173.0	156.3	99.9	90.2
Avg.	100.1	96.4	104.6	91.2	0.98	0.94	-0.28	-0.30	6.4	6.7	179.9	161.8	99.9	90.2
Std Dv	0.8	1.0	1.4	1.2	0.26	0.25	0.08	0.10	0.6	0.6	62.8	51.8	2.6	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
60	95.4	92.4	97.4	85.1	0.42	0.40	-0.15	-0.13	7.6	7.1	347.3	332.4	221.7	212.1
61									NO TRACKING DATA					
62	94.2	90.9	96.0	83.8	0.59	0.56	-0.18	-0.16	6.8	6.0	228.3	215.0	225.2	212.1
63	94.8	91.8	95.7	82.7	-0.03	-0.02	-0.01	-0.01	7.7	7.9	409.6	408.8	212.5	212.1
Avg.	94.8	91.7	96.4	83.9	0.33	0.31	-0.11	-0.10	7.4	7.0	328.4	318.7	219.8	212.1
Std Dv	0.9	1.1	1.2	1.7	0.45	0.42	0.13	0.11	0.7	1.4	130.2	138.0	9.3	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
64	92.4	89.5	93.9	81.1	-0.19	-0.17	0.03	0.03	6.9	6.9	548.2	554.3	300.2	303.6
65									NO TRACKING DATA					
66	91.2	88.3	91.0	78.6	-0.04	-0.02	-0.01	-0.01	7.6	7.3	335.3	334.6	304.2	303.6
67	91.2	88.4	91.6	77.7	-0.10	-0.10	0.02	0.02	7.4	8.1	396.4	398.6	301.9	303.6
Avg.	91.6	88.7	92.2	79.1	-0.11	-0.10	0.01	0.01	7.3	7.4	426.6	429.2	302.1	303.6
Std Dv	1.0	1.0	2.2	2.5	0.11	0.11	0.03	0.03	0.5	0.9	155.0	159.8	2.8	0.0

SINKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/91

CORRECTION DATA

JUNE 25, 1980

CENTERLINE - CENTER

FILE:

[illegible]

TABLE NO. B.4-1.16

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

JUNE 25, 1980

SITE: 16

CENTERLINE - CENTER (FLUSH)

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTM	QBAM	$\wedge(1P) \wedge(1A) \wedge(2F) \wedge(2A)$	$\wedge(1P) \wedge(1A) \wedge(2F) \wedge(2A)$	$\wedge(1P) \wedge(1A) \wedge(2F) \wedge(2A)$	$\wedge(1P) \wedge(1A) \wedge(2F) \wedge(2A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
40	100.6	97.6	101.4	88.8	0.46	0.46	-0.19	-0.18	7.9	7.5	126.3	119.6	126.2	119.4
42	101.8	98.9	103.9	92.0	-0.60	-0.57	0.17	0.15	7.1	6.4	166.9	176.4	113.0	119.4
44	101.5	98.5	103.0	90.9	0.18	0.18	-0.07	-0.07	7.1	6.8	142.4	139.1	122.2	119.4
46	101.4	98.6	102.7	89.7	0.30	0.30	-0.11	-0.11	7.2	7.0	124.0	119.7	123.8	119.4
48	100.7	97.9	102.3	89.7	0.12	0.13	-0.05	-0.05	6.9	6.6	143.7	141.2	121.5	119.4
50											NO TRACKING DATA			
AVG.	101.2	98.3	102.7	90.2	0.09	0.10	-0.05	-0.05	7.2	6.9	140.7	139.2	121.3	119.4
Std Dv	0.6	0.6	1.0	1.4	0.47	0.46	0.15	0.14	0.4	0.5	19.8	26.8	5.8	0.0
TAKEOFF														
41	95.8	92.0	98.6	84.6	2.00	1.94	-0.69	-0.71	7.4	7.6	142.6	115.3	125.7	101.6
43	96.2	92.4	99.3	85.9	3.26	3.13	-1.03	-1.01	7.2	7.1	155.0	111.7	141.0	101.6
45											NO TRACKING DATA			
47	95.5	91.9	98.7	85.1	2.71	2.63	-0.83	-0.84	6.9	6.9	163.5	123.6	134.5	101.6
49	96.1	92.4	99.2	85.6	3.06	2.86	-0.96	-0.97	7.2	7.3	145.9	107.4	138.0	101.6
51	95.9	92.5	99.1	85.5	2.65	2.48	-0.79	-0.82	6.9	7.1	145.5	111.7	132.4	101.6
AVG.	95.9	92.2	99.0	85.3	2.74	2.61	-0.86	-0.87	7.1	7.2	150.5	113.9	134.3	101.6
Std Dv	0.3	0.3	0.4	0.6	0.56	0.52	0.16	0.14	0.3	0.3	10.6	7.0	6.7	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS														
18	93.6	90.7	95.5	82.9	-0.28	-0.20	0.03	0.03	7.2	7.0	164.9	166.3	151.1	152.4
19	91.8	89.1	95.8	82.8	0.15	0.20	-0.09	-0.10	6.1	6.4	235.5	227.2	158.0	152.4
20											NO TRACKING DATA			
21	92.0	89.4	95.3	83.1	-0.39	-0.28	0.04	0.04	6.7	6.8	226.5	229.5	150.4	152.4
22	93.1	90.1	96.1	83.6	-1.33	-1.15	0.27	0.27	6.2	6.1	181.4	290.7	137.7	152.4
23	91.9	89.4	95.0	82.6	0.73	0.72	-0.27	-0.26	7.1	7.0	232.0	212.7	166.2	152.4
AVG.	92.5	89.8	95.5	83.0	-0.22	-0.14	-0.00	-0.00	6.7	6.7	208.1	207.3	152.7	152.4
Std Dv	0.9	0.8	0.5	0.4	0.88	0.80	0.23	0.23	0.6	0.5	37.6	29.7	12.1	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS														
24											NO TRACKING DATA			
25	92.7	90.1	98.0	85.1	0.30	0.32	-0.12	-0.12	5.7	6.0	225.8	215.3	159.8	152.4
26	93.6	90.7	97.1	84.1	-0.57	-0.49	0.10	0.10	6.4	6.4	173.8	180.2	147.0	152.4
27	92.6	90.2	97.4	84.8	-0.15	-0.12	-0.01	-0.01	5.7	5.8	203.2	202.7	152.8	152.4
28	93.8	90.8	97.1	83.9	-0.60	-0.55	0.12	0.12	6.3	6.4	159.7	166.9	145.8	152.4
29	92.9	90.2	97.7	84.6	0.51	0.45	-0.15	-0.16	5.9	6.3	214.9	202.6	161.7	152.4
AVG.	93.2	90.4	97.5	84.5	-0.10	-0.08	-0.01	-0.01	6.0	6.2	195.5	193.5	153.4	152.4
Std Dv	0.6	0.4	0.4	0.6	0.58	0.53	0.14	0.15	0.4	0.3	32.2	22.6	8.3	0.0

TABLE NO. B.4-2.16

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

SITE: 16				CENTERLINE - CENTER (FLUSH)				JUNE 25, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANT'S						
EV	EPNL	MEL	PNLTH	dBAM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SK	CPA	SRK	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
10	98.0	94.8	103.7	90.7	2.20	2.09	-0.57	-0.56	5.8	5.7	163.0	129.9	114.7	91.4
11	97.9	94.9	104.4	91.7	2.52	2.46	-0.60	-0.63	5.2	5.5	169.6	130.1	119.2	91.4
16	99.0	95.6	104.7	91.1	0.32	0.33	-0.11	-0.11	5.7	5.9	128.5	122.9	95.6	91.4
17											NO TRACKING DATA			
Avg.	98.3	95.1	104.3	91.2	1.71	1.63	-0.43	-0.43	5.6	5.7	153.7	127.6	109.9	91.4
Std Dev	0.9	0.6	0.7	0.7	1.73	1.61	0.39	0.40	0.4	0.3	31.2	5.8	17.7	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
8	93.6	91.2	96.3	84.7	0.13	0.17	-0.10	-0.10	6.8	6.4	307.6	296.9	221.0	213.4
9	92.0	89.7	96.1	83.8	1.12	1.08	-0.32	-0.33	6.2	6.4	303.8	269.4	240.6	213.4
14	92.6	90.2	95.3	83.0	0.37	0.39	-0.16	-0.16	6.7	6.6	307.8	291.0	225.7	213.4
15	91.4	88.9	95.6	83.0	0.64	0.63	-0.21	-0.22	5.9	6.4	337.5	311.7	231.0	213.4
Avg.	92.4	90.0	95.8	83.6	0.56	0.57	-0.20	-0.20	6.4	6.4	314.2	292.2	229.6	213.4
Std Dev	1.2	1.2	0.6	1.0	0.52	0.48	0.11	0.12	0.5	0.1	19.2	21.5	10.3	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
1	89.3	87.2	91.9	79.9	0.99	0.95	-0.31	-0.32	6.7	6.9	425.9	382.6	339.3	304.8
2	90.1	87.8	91.4	79.5	0.08	0.15	-0.11	-0.11	6.7	6.9	452.4	435.7	316.5	304.8
3	89.3	87.4	92.0	80.4	0.47	0.48	-0.19	-0.18	6.6	6.3	427.8	400.8	325.3	304.8
4	90.8	88.7	92.3	80.6	0.46	0.47	-0.20	-0.19	7.0	6.9	431.5	404.4	325.2	304.8
52	90.9	88.8	92.8	80.4	0.58	0.54	-0.18	-0.18	7.0	7.0	345.9	325.9	323.5	304.8
53	89.0	87.2	91.2	79.4	1.03	0.93	-0.27	-0.27	6.8	6.8	491.1	447.7	334.3	304.8
54	92.3	89.9	94.8	82.5	1.58	1.36	-0.30	-0.29	6.5	6.2	964.6	865.8	339.6	304.8
55	90.0	88.2	93.4	81.5	0.27	0.27	-0.09	-0.10	6.4	6.5	401.8	388.4	315.3	304.8
Avg.	90.2	88.1	92.5	80.5	0.68	0.64	-0.21	-0.20	6.7	6.7	492.6	456.4	327.4	304.8
Std Dev	1.2	1.0	1.3	1.1	0.53	0.44	0.09	0.09	0.3	0.3	85.4	183.0	10.2	0.0

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TABLE NO. B.4-3.16

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

EV	CORRECTED			CORRECTIONS (dB)			CONSTANTS		JUNE 25, 1980			
	EPNL	NEL	PWLTH	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS												
5	85.8	83.9	87.1	74.9	0.67	0.66	-0.25	-0.26	6.8	7.2	699.6	443.0
6									NO TRACKING DATA			
7	86.2	84.4	87.8	75.8	0.75	0.73	-0.26	-0.27	6.8	7.0	644.6	589.4
12									NO TRACKING DATA			
13	85.7	84.1	87.5	75.8	0.32	0.36	-0.18	-0.18	7.1	7.0	418.2	582.5
38	87.5	85.8	88.0	76.4	0.07	0.11	-0.12	-0.11	7.1	6.9	617.7	594.6
39	85.9	84.6	87.2	75.5	0.18	0.23	-0.14	-0.15	7.0	7.3	560.3	534.6
Avg.	86.2	84.5	87.5	75.7	0.40	0.42	-0.19	-0.19	7.0	7.1	428.1	588.8
Std Dv	0.8	0.9	0.4	0.6	0.35	0.31	0.07	0.08	58.3	44.5	12.7	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS												
34	85.8	83.8	85.7	74.4	-0.16	-0.19	-0.06	-0.06	7.3	7.2	769.4	754.0
35	84.4	82.9	85.4	74.4	-0.11	-0.07	-0.08	-0.08	6.6	6.7	819.0	796.2
36	84.9	82.9	84.2	72.4	0.20	0.12	-0.13	-0.14	7.1	7.2	847.3	811.2
37	84.4	82.6	84.2	73.2	0.37	0.35	-0.19	-0.18	7.6	7.3	737.2	695.6
Avg.	84.8	83.1	84.9	73.6	0.07	0.05	-0.11	-0.11	7.2	7.1	793.2	764.2
Std Dv	0.8	0.6	1.0	1.2	0.31	0.29	0.07	0.07	60.4	63.4	13.0	0.0
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS												
30									NO TRACKING DATA			
31	81.4	79.6	80.2	68.7	0.22	-0.04	-0.12	-0.12	7.5	7.5	1009.9	974.8
32	83.7	81.7	82.4	71.5	-0.02	-0.39	-0.03	-0.03	7.3	7.0	983.0	974.3
33	82.4	80.2	81.6	70.3	0.31	0.09	-0.13	-0.13	7.2	6.9	1005.7	964.0
Avg.	82.5	80.5	81.4	70.2	0.17	-0.11	-0.09	-0.09	7.4	7.2	999.5	971.0
Std Dv	1.7	1.6	1.6	2.0	0.24	0.35	0.08	0.08	0.0	0.0	19.5	0.0

TABLE NO. B.5-2.15

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

SITE: 1G				CENTERLINE - CENTER (FLUSH)				JUNE 25, 1980					
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	MEL	PWLTH	GRAM	$\wedge(1(F)) \wedge(1(A)) \wedge(2(F)) \wedge(2(A))$	K(F)	K(A)	SR	CPA	SRR	CPAR		
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS													
56	104.1	100.4	108.8	96.0	0.78 0.76 -0.24	6.5	5.0	119.2	109.6	99.5	91.4		
57	103.6	99.8	108.8	95.3	0.85 -0.22 -0.22	5.7	5.7	140.9	129.0	99.9	91.4		
58	105.0	101.4	110.5	96.2	1.25 1.21 -0.35	6.3	6.9	204.4	179.6	104.1	91.4		
59	103.3	99.4	107.7	94.2	0.95 0.93 -0.26	6.5	6.5	173.7	157.2	101.1	91.4		
AVG.	104.0	100.2	108.9	95.4	0.96 0.93 -0.27	6.3	6.3	159.6	143.8	101.1	91.4		
Std Dev	0.9	1.1	1.4	1.1	0.25 0.24 0.07	0.4	0.6	45.7	37.7	2.5	0.0		
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS													
60	99.7	94.5	102.5	90.2	0.40 0.39 -0.14	7.2	6.5	223.7	214.2	222.8	213.4		
61								NO TRACKING DATA					
62	98.8	94.8	101.2	88.6	0.57 0.55 -0.17	6.4	6.3	229.5	216.2	226.4	213.4		
63	99.1	95.5	106.6	86.6	-0.03 -0.03 -0.01	7.3	7.7	410.2	409.4	213.8	213.4		
AVG.	99.2	95.6	101.4	88.5	0.31 0.30 -0.11	7.0	6.8	287.8	279.9	221.0	213.4		
Std Dev	0.7	1.2	1.4	2.6	0.44 0.42 0.12	0.7	1.1	149.9	158.6	9.2	0.0		
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS													
64	96.3	93.0	97.9	84.7	-0.17 -0.16 0.03	7.0	6.8	461.1	466.3	301.4	304.8		
65								NO TRACKING DATA					
66	95.7	92.4	96.5	83.5	-0.02 -0.02 -0.01	7.0	6.8	359.4	358.6	305.4	304.8		
67	95.4	92.2	95.8	81.6	-0.10 -0.10 0.02	7.5	7.7	424.2	426.6	303.1	304.8		
AVG.	95.8	92.5	96.7	83.3	-0.10 -0.09 0.01	7.2	7.1	414.9	417.2	303.3	304.8		
Std Dev	0.7	0.6	1.6	2.2	0.11 0.10 0.03	0.4	0.8	72.9	77.0	2.8	0.0		

TABLE NO. B.5-3.16

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PWLTH	dBAM	$\wedge(1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	(ACTUAL)	(REFERENCE)	
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
68	92.5	89.1	91.7	78.7	0.01	0.01	-0.02	-0.01	8.2	7.9	553.9	551.6	459.1	457.2
69	94.1	90.8	94.1	81.0	0.84	0.78	-0.22	-0.22	7.3	7.2	1253.2	1148.3	490.4	457.2
70	94.0	90.5	92.9	79.8	0.12	0.12	-0.05	-0.05	7.8	7.6	557.0	549.2	463.7	457.2
71	94.1	90.5	93.9	81.0	-0.23	-0.20	0.04	0.04	6.6	7.1	936.9	949.5	451.2	457.2
AWS.	93.7	90.2	93.2	80.2	0.18	0.18	-0.06	-0.06	7.5	7.4	825.3	804.6	444.1	457.2
Std Dev	1.0	0.9	1.3	1.4	0.56	0.52	0.14	0.14	0.8	0.4	281.1	274.1	20.8	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
72	90.5	87.7	88.6	76.0	0.11	0.10	-0.04	-0.04	7.8	7.6	805.5	795.1	617.5	609.6
74	-	87.8	89.8	77.3	0.21	0.20	-	-0.06	-	7.0	1109.8	1087.0	622.4	609.6
75	91.2	88.0	89.6	76.7	0.06	0.06	-0.03	-0.03	7.5	7.2	824.3	816.7	615.3	609.6
AWS.	90.8	87.8	89.3	76.7	0.13	0.12	-0.03	-0.04	7.6	7.2	913.2	899.6	618.4	609.6
Std Dev	0.5	0.2	0.9	0.9	0.11	0.10	0.01	0.02	0.2	0.4	139.7	133.4	5.2	0.0
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
76	89.4	86.4	87.1	74.7	0.33	0.31	-0.10	-0.10	7.9	7.3	786.6	763.2	785.4	762.0
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AWS.	89.4	86.4	87.1	74.7	0.33	0.31	-0.10	-0.10	7.9	7.3	786.6	763.2	785.4	762.0
Std Dev	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.4-1.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

JUNE 25, 1980

SITE: 1H CENTERLINE - CENTER (10-METER)

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	MEL	PWLTH	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CFA	SR	CFA	SR	CPAR
APPROACH														
40	96.6	93.5	97.6	84.2	0.50	-0.50	7.7	7.9	139.6	131.6	116.2	109.5		
42	99.7	97.0	101.7	89.3	-0.65	0.19	7.0	6.9	147.6	157.0	193.0	109.5		
44	99.6	96.7	101.2	88.3	0.19	-0.08	7.0	6.9	141.7	138.2	112.3	109.5		
46	99.6	96.8	100.5	87.8	0.33	-0.12	7.1	7.1	113.9	109.7	113.8	109.5		
48	99.1	96.1	101.4	87.9	0.14	-0.05	6.4	6.6	120.2	118.1	111.5	109.5		
50									NO TRACKING DATA					
Ave.	98.9	96.0	100.5	87.5	0.10	-0.05	7.0	7.1	132.6	130.9	111.4	109.5		
Std Dv	1.5	1.7	1.9	2.2	0.51	0.17	0.5	0.6	16.9	21.2	5.8	0.0		
TARGET														
41	94.2	90.1	97.8	82.9	2.21	-0.71	7.0	7.6	146.9	116.4	115.8	91.7		
43	93.7	89.9	97.0	83.3	3.43	-1.14	7.3	7.2	143.3	100.2	131.1	91.7		
45									NO TRACKING DATA					
47	93.4	89.8	97.1	82.9	2.96	-0.97	7.3	7.2	144.1	105.9	124.7	91.7		
49	93.6	90.0	97.4	83.2	3.27	-1.06	7.3	7.4	175.6	125.6	128.2	91.7		
51	93.6	90.1	97.3	83.4	2.79	-0.90	7.2	7.3	137.1	102.6	122.6	91.7		
Ave.	93.7	90.0	97.3	83.2	2.93	-0.96	7.2	7.3	149.4	110.1	124.5	91.7		
Std Dv	0.4	0.2	0.4	0.3	0.55	0.19	0.2	0.2	17.4	12.3	6.8	0.0		
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS														
18	89.8	86.9	91.9	78.4	-0.30	-0.21	6.9	6.9	168.1	169.6	141.1	142.3		
19	88.6	85.7	93.1	79.7	0.21	-0.24	5.9	6.1	206.0	192.4	148.0	142.3		
20									NO TRACKING DATA					
21	88.9	86.1	92.9	79.9	-0.37	-0.27	6.4	6.4	190.4	192.9	140.5	142.3		
22	89.5	86.5	92.1	78.7	-1.41	-1.22	6.6	6.8	173.1	193.0	127.7	142.3		
23	88.9	85.9	92.4	79.4	0.80	-0.79	6.7	6.6	224.1	204.1	156.3	142.3		
Ave.	89.1	86.2	92.5	79.2	-0.21	-0.13	6.5	6.5	191.1	190.4	142.7	142.3		
Std Dv	0.6	0.6	0.6	0.7	0.94	0.86	0.4	0.3	25.9	14.6	12.2	0.0		
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS														
24									NO TRACKING DATA					
25	89.3	86.3	94.6	81.4	0.35	-0.36	5.6	5.8	217.7	206.9	149.8	142.3		
26	90.0	87.2	93.8	80.1	-0.61	-0.52	6.3	6.3	183.3	190.5	136.9	142.3		
27	89.2	86.5	94.2	81.4	-0.13	-0.10	5.8	5.6	194.3	193.7	142.8	142.3		
28	90.3	87.3	93.6	79.9	-0.63	-0.58	6.4	6.6	164.7	172.7	135.8	142.3		
29	89.4	86.3	93.7	80.2	0.62	-0.53	6.2	6.4	206.7	193.7	151.9	142.3		
Ave.	89.7	86.7	94.0	80.6	-0.08	-0.01	6.0	6.2	193.3	191.5	143.4	142.3		
Std Dv	0.5	0.6	0.5	0.9	0.65	0.58	0.4	0.5	23.8	14.1	8.4	0.0		

TABLE NO. B.4-2.1H

SIKORSKY S-76 SPIRIT HELICOPTER

CORRECTION DATA - MAIN ROTOR RPM 107Z

SITE: 1H					CENTERLINE - CENTER (10-METER)					JUNE 25, 1980					
CORRECTED					CORRECTIONS (dB)					CONSTANTS		TRACKING DATA (METERS) (ACTUAL)			
EV	EPHL	NEL	PNLTH	DBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
10	94.8	91.4	100.8	87.1	2.47	2.32	-0.62	-0.63	5.7	5.7	155.0	120.6	104.6	81.4	
11	94.6	91.5	101.3	88.2	3.00	2.79	-0.70	-0.68	5.5	5.3	200.7	149.6	109.2	81.4	
16	95.5	92.1	101.4	87.6	0.39	0.41	-0.13	-0.14	5.4	6.0	151.1	143.3	85.8	81.4	
17											NO TRACKING DATA				
Avs.	95.0	91.6	101.2	87.6	1.95	1.84	-0.48	-0.48	5.5	5.7	169.0	137.8	99.9	81.4	
Std Bv	0.6	0.5	0.5	0.8	1.95	1.78	0.44	0.42	0.2	0.5	39.0	21.6	17.5	0.0	
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
8	89.9	87.2	93.0	80.2	0.21	0.20	-0.11	-0.11	6.5	6.6	299.4	288.5	211.0	203.3	
9	88.1	85.8	92.1	79.4	1.21	1.14	-0.34	-0.36	6.2	6.6	295.0	260.0	230.7	203.3	
14	89.5	86.8	92.1	79.1	0.45	0.43	-0.17	-0.18	6.6	6.8	299.6	282.4	215.7	203.3	
15	87.6	85.2	91.3	78.9	0.69	0.68	-0.23	-0.24	6.4	6.5	294.3	270.7	221.0	203.3	
Avs.	88.8	86.3	92.1	79.4	0.64	0.61	-0.21	-0.22	6.4	6.7	297.1	275.4	219.6	203.3	
Std Bv	1.3	1.1	0.8	0.7	0.52	0.49	0.12	0.13	0.2	0.1	3.4	15.5	10.4	0.0	
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS															
1	85.8	83.4	88.2	75.8	1.05	0.99	-0.32	-0.34	6.7	7.0	485.0	434.2	329.2	294.7	
2	86.2	84.2	87.2	74.9	0.22	0.20	-0.12	-0.12	6.8	7.0	417.7	401.7	306.4	294.7	
3	85.9	83.9	88.0	75.7	0.47	0.50	-0.20	-0.19	6.9	6.5	419.2	392.0	315.2	294.7	
4	87.2	84.8	88.7	76.0	0.54	0.50	-0.20	-0.21	6.9	7.2	423.0	395.6	315.2	294.7	
52	88.3	86.5	89.6	78.0	0.60	0.57	-0.18	-0.18	6.8	6.7	393.4	369.9	313.5	294.7	
53	86.4	84.8	89.0	77.9	1.03	0.97	-0.26	-0.25	6.4	6.1	520.6	473.1	324.4	294.7	
54	90.3	87.8	92.3	78.6	2.20	1.78	-0.40	-0.41	6.6	6.8	998.9	868.4	339.0	294.7	
55	87.0	85.4	90.6	78.4	0.29	0.28	-0.10	-0.10	6.7	6.7	464.9	448.9	305.2	294.7	
Avs.	87.1	85.1	89.1	77.2	0.80	0.72	-0.22	-0.22	6.7	6.7	515.3	473.0	318.5	294.7	
Std Bv	1.6	1.6	1.7	1.7	0.69	0.55	0.11	0.11	0.2	0.4	87.2	176.4	12.5	0.0	

TABLE NO. B.4-3.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		JUNE 25, 1980			
	SPNL	NEL	PMLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRK	CPAR
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
5	81.9	79.9	83.2	70.7	0.74	0.69	-0.25	-0.27	6.7	7.2	691.2	634.2	487.4	447.1
6	82.3	80.6	83.4	72.3	0.78	0.75	-0.28	-0.26	7.1	6.6	635.7	580.1	489.9	447.1
12											NO TRACKING DATA			
13											NO TRACKING DATA			
38											NO TRACKING DATA			
39	82.2	80.6	82.9	71.5	0.26	0.27	-0.15	-0.15	7.1	7.0	583.6	561.2	464.9	447.1
											576.4	549.4	469.1	447.1
Avg.	82.1	80.8	83.4	71.7	0.49	0.47	-0.23	-0.20	7.0	7.0	621.7	581.2	477.8	447.1
Std Dv	0.3	1.1	0.5	0.9	0.38	0.36	0.10	0.09	0.3	0.4	65.3	45.9	15.5	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
34	81.7	79.7	81.2	69.3	0.00	-0.15	-0.06	-0.07	7.1	7.4	789.2	773.1	612.0	599.5
35	81.0	79.2	81.7	69.7	0.05	-0.04	-0.08	-0.09	6.6	7.1	841.6	817.8	617.0	599.5
36											899.5	860.5	626.7	599.5
37	80.7	78.6	81.2	68.8	0.40	0.35	-0.18	-0.18	7.0	7.2	871.0	821.1	635.9	599.5
Avg.	81.1	79.2	81.3	69.0	0.17	0.08	-0.11	-0.12	6.9	7.2	850.3	818.1	622.9	599.5
Std Dv	0.7	0.6	0.4	0.9	0.72	0.27	0.09	0.06	0.3	0.2	57.7	43.8	13.0	0.0
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
30											NO TRACKING DATA			
31											1062.3	1024.9	779.4	751.9
32											995.6	986.7	758.7	751.9
33											1059.1	1014.6	784.9	751.9
Avg.											1039.0	1008.7	774.3	751.9
Std Dv											0.0	0.0	19.5	0.0

TABLE NO. B.5-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

JUNE 25, 1980

SITE: 1H CENTERLINE - CENTER (10-METER)

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (ACTUAL)		TRACKING DATA (REFERENCE)		
EV	EPML	NEL	PMLTH	dBAM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR	
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS															
56	102.3	98.4	106.9	93.1	0.91	0.88	-0.26	-0.26	6.3	6.3	193.0	175.2	89.6	81.4	
57	101.7	97.7	106.4	92.8	0.96	0.92	-0.27	-0.27	6.2	6.2	132.4	119.9	89.9	81.4	
58	103.0	99.4	106.3	94.5	1.41	1.36	-0.41	-0.43	6.4	6.8	198.1	171.1	94.3	81.4	
59	101.7	97.6	106.2	91.8	1.07	1.03	-0.30	-0.33	6.2	5.8	167.0	149.3	91.6	81.4	
Avg.	102.2	98.3	106.9	93.1	1.09	1.05	-0.31	-0.32	6.3	6.5	172.6	153.9	91.2	81.4	
Std Dev	0.8	1.0	1.2	1.4	0.28	0.27	0.08	0.10	0.1	0.4	36.9	31.1	2.6	0.6	
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS															
60	97.6	94.2	100.3	86.7	0.45	0.43	-0.15	-0.15	7.1	7.2	300.3	286.4	213.2	203.3	
61											NO TRACKING DATA				
62	96.8	92.9	98.4	85.5	0.62	0.59	-0.19	-0.17	7.1	6.2	219.4	205.9	216.6	203.3	
63	97.5	93.8	99.4	85.2	-0.03	-0.02	-0.01	-0.01	7.1	7.4	403.9	403.1	203.7	203.3	
Avg.	97.3	93.6	99.3	85.8	0.35	0.33	-0.12	-0.11	7.1	6.9	307.9	298.5	211.2	203.3	
Std Dev	0.6	0.9	1.4	1.1	0.48	0.45	0.13	0.12	0.0	0.9	136.8	140.2	9.5	0.6	
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS															
64	94.4	91.1	96.0	81.9	-0.17	-0.16	0.03	0.04	6.9	7.3	413.3	418.1	291.4	294.7	
65											NO TRACKING DATA				
66	93.1	89.7	93.5	80.6	-0.03	-0.01	-0.01	-0.01	7.2	6.9	326.6	325.8	295.4	294.7	
67	93.5	90.1	94.0	80.0	-0.10	-0.09	0.02	0.02	7.2	7.7	388.7	390.9	293.1	294.7	
Avg.	93.6	90.3	94.5	80.8	-0.10	-0.09	0.01	0.02	7.1	7.3	376.2	378.3	293.3	294.7	
Std Dev	0.9	1.0	1.9	1.4	0.10	0.11	0.03	0.04	0.3	0.6	63.2	67.0	2.9	0.6	

SIKORSKY UH-60A BLACKHAWK HELICOPTER

18/32/21
751/100

CORRECTION DATA

JUNE 25, 1980

CENTERLINE - CENTER (10-METER)

SITE: IH

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (ACTUAL)				TRACKING DATA (REFERENCE)			
EV	EPNL	NEL	PNLIM	dBAM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR				
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS																		
68	90.5	87.0	90.0	76.7	0.01	0.01	-0.02	-0.02	8.0	7.9	641.0	638.1	449.1	447.1				
69	-	88.2	90.6	78.1	-0.06	-0.05	-	0.00	-	7.1	897.7	898.8	446.6	447.1				
70	92.0	88.6	92.2	78.7	0.13	0.12	-0.04	-0.04	7.0	6.9	890.1	877.2	453.7	447.1				
71	91.9	88.4	91.6	77.1	-0.19	-0.18	0.04	0.04	6.9	7.5	602.0	610.2	441.1	447.1				
Avg.	91.5	88.1	91.1	77.7	-0.03	-0.03	-0.01	-0.00	7.3	7.3	757.7	756.1	447.6	447.1				
Std Dev	1.2	0.8	1.2	1.2	0.16	0.15	0.06	0.04	0.9	0.5	193.7	187.4	6.4	0.0				
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS																		
72	88.7	85.5	87.3	73.6	0.14	0.12	-0.05	-0.05	7.4	7.7	1196.7	1179.9	608.1	599.5				
74	-	85.9	88.6	75.2	0.22	0.20	-	-0.06	-	7.0	1060.6	1038.4	612.4	599.5				
75	89.2	86.0	88.0	73.5	0.07	0.07	-0.03	-0.03	7.2	7.9	815.0	807.4	605.2	599.5				
Avg.	88.9	85.8	88.0	74.1	0.14	0.13	-0.04	-0.05	7.3	7.6	1024.1	1008.6	608.6	599.5				
Std Dev	0.4	0.4	0.9	1.4	0.11	0.09	0.01	0.02	0.2	0.6	209.1	201.2	5.1	0.0				
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS																		
76	87.6	84.2	85.9	73.3	0.34	0.31	-0.10	-0.09	7.2	7.0	781.0	757.4	775.4	751.9				
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Avg.	87.6	84.2	85.9	73.3	0.34	0.31	-0.10	-0.09	7.2	7.0	781.0	757.4	775.4	751.9				
Std Dev	-	-	-	-	-	-	-	-	-	-	-	-	-	-				

TABLE NO. B.4-1.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 25, 1980

SITE: 2

CENTERLINE - 150 M. WEST

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	NEL	PNLTH	dBAM	^1(P)	^1(A)	^2(P)	^2(A)	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
40	96.9	93.6	99.3	85.7	0.34	0.35	-0.13	-0.13	7.0	7.0	116.5	111.6	107.1	102.6
42	98.3	95.4	101.8	88.6	-0.67	-0.62	0.17	0.17	5.9	6.1	129.2	137.8	96.2	102.6
44	98.4	94.9	101.5	88.4	-0.13	-0.11	0.02	0.02	6.2	5.9	128.8	129.9	101.7	102.6
46	98.1	94.8	99.9	86.9	-0.04	-0.03	0.00	0.00	7.2	6.9	106.5	106.5	102.6	102.6
48	97.9	94.5	101.2	87.8	-0.14	-0.12	0.03	0.03	6.3	5.2	137.0	138.3	101.6	102.6
50									NO TRACKING DATA					
AVG.	97.9	94.6	100.8	87.5	-0.13	-0.11	0.02	0.02	6.5	6.4	123.6	124.8	101.8	102.6
Std Dv	0.7	0.8	1.3	1.4	0.42	0.40	0.12	0.12	0.6	0.6	13.9	17.2	4.5	0.0
TAKEOFF														
41	94.0	89.9	97.6	83.8	2.59	2.48	-0.86	-0.82	7.4	7.1	108.9	83.5	99.1	75.9
43	94.3	89.9	98.5	84.2	3.46	3.34	-1.05	-1.01	6.9	6.6	123.0	86.5	107.9	75.9
45									NO TRACKING DATA					
47	93.8	89.8	97.7	84.4	2.44	2.33	-0.80	-0.71	7.3	6.5	103.8	80.8	97.5	75.9
49	94.2	90.0	98.8	84.8	2.97	2.83	-0.86	-0.85	6.6	6.5	109.4	80.9	102.6	75.9
51	93.8	89.7	98.5	84.5	2.56	2.45	-0.77	-0.75	6.8	6.7	108.7	83.8	98.4	75.9
AVG.	94.0	89.9	98.2	84.3	2.80	2.69	-0.87	-0.83	7.0	6.7	110.8	83.1	101.1	75.9
Std Dv	0.2	0.1	0.6	0.4	0.48	0.47	0.13	0.13	0.4	0.3	8.3	2.7	4.9	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS														
18	90.0	86.8	93.2	79.6	-0.29	-0.22	0.02	0.02	6.3	6.5	167.9	169.2	150.1	151.2
19	88.6	85.5	92.5	78.9	0.05	0.09	-0.07	-0.07	6.1	6.3	194.5	189.5	155.1	151.2
20									NO TRACKING DATA					
21	88.7	85.7	91.7	78.4	-0.40	-0.31	0.04	0.05	6.4	6.9	185.9	188.9	148.8	151.2
22	89.0	86.1	92.4	79.3	-2.18	-1.69	0.28	0.21	6.1	6.1	475.8	528.8	136.0	151.2
23	88.8	85.7	92.8	79.0	0.75	0.74	-0.24	-0.26	6.3	6.8	195.4	178.7	165.3	151.2
AVG.	89.0	86.0	92.5	79.0	-0.41	-0.28	0.01	0.00	6.2	6.5	243.9	251.0	151.1	151.2
Std Dv	0.6	0.6	0.6	0.6	1.25	1.03	0.22	0.23	0.2	0.4	150.2	179.6	12.3	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS														
24									NO TRACKING DATA					
25	89.5	86.4	94.1	80.7	0.38	0.38	-0.14	-0.15	6.3	6.5	196.9	186.8	159.4	151.2
26	90.7	87.4	94.8	80.8	-0.73	-0.66	0.13	0.13	5.9	5.9	163.8	172.4	143.7	151.2
27	90.3	87.1	94.5	81.4	-0.33	-0.29	0.03	0.03	6.2	6.1	231.6	234.0	149.6	151.2
28	91.0	87.8	94.7	81.1	-0.79	-0.73	0.16	0.15	6.2	5.8	177.0	187.9	142.4	151.2
29	89.6	86.3	93.5	79.7	0.33	0.26	-0.10	-0.11	6.4	6.7	185.3	178.5	156.9	151.2
AVG.	90.2	87.0	94.3	80.7	-0.23	-0.21	0.02	0.01	6.2	6.2	190.9	191.9	150.4	151.2
Std Dv	0.7	0.8	0.6	0.8	0.65	0.59	0.15	0.16	0.2	0.5	29.7	28.2	8.8	0.0

TABLE NO. B.4-2.2

SINORSKY S-76 SPIRIT HELICOPTER

101/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SITE: 2

CENTERLINE - 150 M. WEST

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	NEL	PMLIM	dBAM	$\wedge(1(F))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
10	95.0	91.4	100.9	87.1	2.11	2.01	-0.52	-0.53	5.5	5.6	147.8	118.9	112.2	90.2
11	94.5	91.2	101.1	87.7	2.92	2.74	-0.66	-0.68	5.3	5.4	182.0	136.3	120.5	90.2
16	95.2	91.9	101.0	87.0	0.25	0.27	-0.09	-0.10	5.6	5.9	118.7	114.3	93.7	90.2
17											NO TRACKING DATA			
Avg.	94.9	91.5	101.0	87.3	1.76	1.67	-0.42	-0.44	5.4	5.6	149.5	123.2	108.8	90.2
Std Dev	0.5	0.5	0.1	0.5	1.94	1.79	0.42	0.43	0.2	0.3	44.8	16.4	19.3	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
8	89.9	87.3	92.1	79.8	0.07	0.12	-0.09	-0.09	7.0	6.9	268.3	260.3	218.6	212.1
9	89.1	86.2	92.3	79.8	1.01	0.97	-0.28	-0.27	6.0	5.8	315.8	283.1	236.7	212.1
14	89.1	86.4	91.4	79.0	0.36	0.39	-0.16	-0.16	6.8	6.7	287.4	281.3	224.2	212.1
15	88.3	85.6	91.4	79.1	0.55	0.56	-0.22	-0.21	7.0	6.7	283.1	263.3	228.1	212.1
Avg.	89.1	86.4	91.8	79.4	0.50	0.51	-0.19	-0.18	6.7	6.5	291.1	272.0	226.9	212.1
Std Dev	0.8	0.9	0.6	0.6	0.48	0.44	0.10	0.09	0.6	0.6	24.8	14.5	9.3	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
1	85.6	83.2	87.1	75.2	0.96	0.92	-0.34	-0.33	7.6	7.2	508.7	458.1	337.1	303.6
2	86.8	84.5	88.1	75.6	0.07	0.13	-0.10	-0.10	6.8	6.8	340.5	329.3	313.9	303.6
3	85.6	83.3	87.1	75.0	0.34	0.37	-0.18	-0.18	7.3	7.3	378.3	357.6	321.2	303.6
4	87.1	84.9	88.6	76.6	0.40	0.43	-0.19	-0.18	7.0	6.9	375.2	353.0	322.7	303.6
52	87.2	84.7	88.4	76.6	0.66	0.62	-0.20	-0.19	7.0	6.7	352.9	330.4	324.2	303.6
53	86.2	83.7	89.6	76.9	1.05	0.93	-0.22	-0.23	5.7	5.9	503.1	459.6	332.4	303.6
54	87.7	85.4	88.6	76.9	0.96	0.83	-0.23	-0.22	6.9	6.7	833.7	773.6	327.2	303.6
55	85.6	83.4	87.6	75.5	0.26	0.26	-0.11	-0.10	7.2	6.9	452.4	437.3	314.1	303.6
Avg.	86.5	84.1	88.1	76.0	0.59	0.56	-0.20	-0.19	6.9	6.8	468.1	437.3	324.1	303.6
Std Dev	0.8	0.9	0.9	0.9	0.40	0.33	0.08	0.08	0.6	0.5	174.7	158.4	8.8	0.0

TABLE NO. B.4-3.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25-1980														
SITE: 2														
CENTERLINE - 150 M. WEST														
CORRECTED					CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)				
EV	EPML	NEL	PNLTH	GRAM	^1(P)	^1(A)	^2(P)	^2(A)	K(P)	K(A)	SR	CPA	SRR	CPAR
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
5	82.2	80.1	82.6	71.5	0.77	0.74	-0.29	-0.26	7.4	6.7	589.2	538.9	498.6	456.0
6												NO TRACKING DATA		
7	81.8	79.8	82.3	71.6	0.82	0.80	-0.29	-0.27	7.1	6.6	553.5	503.5	501.3	456.0
12												NO TRACKING DATA		
13	81.6	79.7	82.9	71.6	0.31	0.37	-0.18	-0.18	6.9	6.7	572.6	538.9	484.5	456.0
38	84.6	82.6	84.2	73.3	0.18	0.18	-0.14	-0.13	7.6	7.0	576.9	552.7	475.9	456.0
39	82.7	80.7	84.0	72.6	0.04	0.14	-0.12	-0.11	6.8	6.3	590.0	566.0	475.3	456.0
AVG.	82.6	80.6	83.2	72.1	0.42	0.45	-0.20	-0.19	7.2	6.7	576.4	540.0	487.1	456.0
Std Dev	1.4	1.4	1.0	0.9	0.41	0.36	0.09	0.08	0.4	0.3	17.2	26.9	14.2	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
34	82.2	80.3	81.3	70.1	0.02	-0.13	-0.09	-0.08	7.8	7.3	852.0	830.2	624.4	608.4
35	81.2	78.9	80.4	69.9	-0.01	-0.08	-0.08	-0.08	7.0	6.5	767.2	746.8	625.0	608.4
36	81.7	79.3	79.9	68.6	0.09	0.15	-0.13	-0.14	7.1	7.6	699.6	670.3	635.0	608.4
37	81.0	78.8	80.1	68.3	0.40	0.35	-0.20	-0.19	7.5	7.4	771.3	726.6	645.8	608.4
AVG.	81.5	79.3	80.4	69.2	0.12	0.07	-0.12	-0.12	7.4	7.2	772.5	743.5	632.5	608.4
Std Dev	0.7	0.8	0.8	1.1	0.23	0.27	0.07	0.07	0.5	0.6	76.3	81.1	12.4	0.0
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
30											NO TRACKING DATA			
31	79.2	76.9	77.7	65.8	0.36	-0.01	-0.13	-0.13	7.5	7.6	1185.0	1139.0	791.5	760.8
32	-	78.6	78.9	67.4	0.20	-0.29	-	-0.02	-	7.4	820.9	815.1	766.2	760.8
33	79.9	77.1	78.9	66.7	0.49	0.11	-0.13	-0.13	7.3	7.1	932.4	895.0	792.6	760.8
AVG.	79.5	77.5	78.5	66.6	0.35	-0.06	-0.13	-0.09	7.4	7.4	979.4	949.7	783.4	760.8
Std Dev	0.5	1.3	1.0	1.2	0.21	0.29	0.00	0.09	0.1	0.4	165.4	145.3	21.1	0.0

JUNE 25, 1980

SITE: 2 CENTERLINE - 150 M. WEST

TABLE NO. B.5-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOI/TSC
12/23/81

CORRECTION DATA

SITE: 2

CENTERLINE - 150 N. WEST

JUNE 25, 1980

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPW	MEL	PMLTH	dBAN	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR		
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
56	99.9	96.5	104.3	91.7	0.84	0.81	-0.27	-0.24	7.1	6.3	224.2	205.2	98.6	90.2
57	99.2	95.1	104.2	90.9	0.72	0.69	-0.19	-0.18	5.8	5.6	115.6	107.2	97.2	90.2
58	99.4	95.8	104.4	91.3	1.13	1.09	-0.32	-0.32	6.2	6.1	112.0	99.4	101.7	90.2
59	99.1	95.0	103.6	89.6	0.99	0.97	-0.30	-0.31	6.6	6.8	144.0	129.8	100.1	90.2
Avg.	99.4	95.6	104.1	90.9	0.92	0.89	-0.27	-0.26	6.4	6.2	148.9	135.4	99.4	90.2
Std Dev	0.5	0.9	0.4	1.1	0.22	0.22	0.07	0.08	0.7	0.6	63.9	59.1	2.3	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
60	-	93.3	98.5	84.7	0.18	0.18	-	-0.08	-	7.5	732.4	715.6	217.1	212.1
61											NO TRACKING DATA			
62	95.3	92.0	96.7	84.0	0.45	0.43	-0.15	-0.14	7.4	7.2	231.9	221.3	222.3	212.1
63	94.6	91.1	95.5	81.9	0.16	0.16	-0.06	-0.06	7.4	7.4	314.4	308.4	216.2	212.1
Avg.	95.0	92.1	96.9	83.5	0.26	0.26	-0.10	-0.09	7.4	7.4	426.2	415.1	218.5	212.1
Std Dev	0.5	1.6	2.1	2.1	0.23	0.21	0.06	0.06	0.1	0.3	379.5	373.1	4.6	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
64	91.6	88.7	93.5	80.9	-0.27	-0.23	0.05	0.05	6.9	6.7	674.0	685.2	298.6	303.6
65											NO TRACKING DATA			
66	90.7	87.4	91.0	77.9	0.06	0.06	-0.03	-0.03	7.8	7.8	558.6	553.3	306.5	303.6
67	91.3	88.1	91.1	78.4	-0.13	-0.13	0.03	0.03	7.6	7.4	375.1	378.1	301.2	303.6
Avg.	91.2	88.1	91.9	79.1	-0.11	-0.10	0.02	0.02	7.5	7.3	535.9	538.9	302.1	303.6
Std Dev	0.6	0.9	2.0	2.2	0.23	0.21	0.06	0.06	0.7	0.8	213.2	217.8	5.7	0.0

TABLE NO. B.5-3.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

SITE: 2				CENTERLINE - 150 M. WEST				JUNE 25, 1980					
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)			
EV	EPML	NEL	PMLTH	GBAH	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS													
68	87.6	84.8	87.4	74.7	0.05	-0.03	7.9	7.8	1113.9	1104.3	460.0	456.0	
69	88.7	85.8	87.1	74.2	-0.07	0.01	7.8	7.8	567.9	569.3	454.9	456.0	
70	89.0	85.7	88.4	75.3	0.15	-0.05	7.5	7.5	1063.1	1046.5	463.2	456.0	
71	89.2	85.9	87.9	74.7	-0.22	0.05	7.4	7.9	705.0	715.4	449.4	456.0	
Avg.	88.6	85.5	87.7	74.7	-0.02	-0.00	7.7	7.7	862.5	858.9	456.9	456.0	
Std Dv	0.9	0.6	0.7	0.5	0.20	0.05	0.3	0.2	236.2	228.5	7.4	0.0	
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS													
72	-	83.6	84.9	72.1	0.11	-0.04	-	7.4	927.8	915.3	616.7	608.4	
73	86.4	83.7	84.2	72.1	0.16	-0.06	8.4	7.8	641.3	630.3	618.9	608.4	
74	86.6	83.7	84.7	71.5	0.02	-0.02	7.8	8.1	914.1	908.5	612.1	608.4	
Avg.	86.5	83.7	84.6	71.9	0.10	-0.04	8.1	7.8	827.7	818.1	615.9	608.4	
Std Dv	0.1	0.1	0.5	0.5	0.10	0.03	0.4	0.4	228.5	229.9	4.9	0.0	
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS													
76	-	-	-	-	-	-	-	-	NO TRACKING DATA				
77	-	-	-	-	-	-	-	-	NO TRACKING DATA				
Avg.	-	-	-	-	-	-	-	-	NO TRACKING DATA				
Std Dv	-	-	-	-	-	-	-	-	NO TRACKING DATA				

TABLE NO. B.4-1.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SITE: 3

CENTERLINE - 150 M. EAST

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	GBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH														
40	95.5	92.2	95.8	82.7	0.43	0.43	-0.17	-0.16	7.4	6.9	186.1	176.4	141.2	133.9
42	95.9	93.0	97.3	85.1	-0.53	-0.49	0.14	0.13	6.8	6.4	159.9	167.8	127.6	133.9
44	97.6	94.6	98.4	85.7	0.36	0.36	-0.13	-0.12	6.9	6.6	183.5	175.7	139.8	133.9
46	97.4	94.4	97.7	85.0	0.34	0.34	-0.13	-0.13	7.4	7.1	158.2	151.9	139.5	133.9
48	97.3	94.4	99.3	86.6	0.39	0.39	-0.13	-0.13	6.7	6.6	187.9	179.6	140.1	133.9
50											NO TRACKING DATA			
Avg.	96.7	93.7	97.7	85.0	0.20	0.21	-0.08	-0.08	7.0	6.7	175.1	170.3	137.7	133.9
Std Dv	1.1	1.2	1.5	1.7	0.47	0.45	0.15	0.14	0.4	0.3	17.0	12.9	6.5	0.0
TAKEOFF														
41	89.8	86.3	91.9	79.1	1.35	1.32	-0.49	-0.44	7.9	7.0	159.7	138.4	144.2	124.9
43	90.3	86.4	92.8	79.2	2.67	2.57	-0.85	-0.81	7.3	7.0	174.7	133.9	163.0	124.9
45											NO TRACKING DATA			
47	89.7	86.3	92.0	77.7	3.06	2.88	-1.00	-1.08	7.4	8.0	233.6	171.3	170.3	124.9
49	90.1	86.6	92.1	78.5	2.99	2.81	-0.99	-1.00	7.6	7.6	251.5	186.3	168.6	124.9
51	90.6	87.3	92.9	79.3	2.91	2.75	-0.94	-0.97	7.5	7.6	238.7	178.3	167.2	124.9
Avg.	90.1	86.6	92.3	78.8	2.60	2.47	-0.85	-0.86	7.6	7.5	211.6	161.6	162.7	124.9
Std Dv	0.4	0.5	0.5	0.8	0.82	0.75	0.24	0.29	0.3	0.5	47.8	27.6	12.3	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS														
18	90.3	87.2	93.3	80.5	-0.36	-0.26	0.03	0.03	6.0	5.9	203.2	205.5	149.5	151.2
19	88.3	85.2	92.2	78.0	0.32	0.34	-0.14	-0.16	6.4	7.1	221.8	210.9	159.1	151.2
20											NO TRACKING DATA			
21	88.7	85.7	91.8	78.6	-0.20	-0.12	0.00	0.00	6.8	6.9	242.0	242.4	150.9	151.2
22	89.6	86.5	93.0	79.9	-1.25	-1.07	0.25	0.24	6.2	6.1	179.1	196.5	137.8	151.2
23	88.6	85.6	91.5	78.0	0.54	0.54	-0.20	-0.21	6.7	6.9	197.6	184.4	162.0	151.2
Avg.	89.1	86.1	92.3	79.0	-0.19	-0.13	-0.01	-0.02	6.4	6.6	208.8	207.9	151.9	151.2
Std Dv	0.9	1.0	0.9	1.3	0.81	0.72	0.20	0.21	0.4	0.6	27.8	25.1	10.9	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS														
24											NO TRACKING DATA			
25	88.4	85.6	93.1	79.5	0.24	0.26	-0.11	-0.12	6.1	6.7	223.7	214.3	157.8	151.2
26	89.6	86.7	92.6	80.0	-0.38	-0.32	0.05	0.05	6.5	6.1	185.3	188.7	148.5	151.2
27	87.8	85.0	91.5	78.0	0.05	0.05	-0.06	-0.06	6.5	6.9	204.1	200.1	154.2	151.2
28	89.8	86.9	93.4	80.6	-0.42	-0.38	0.06	0.06	6.1	5.9	204.1	208.9	147.7	151.2
29	88.4	85.4	91.5	78.7	0.81	0.71	-0.24	-0.23	6.7	6.5	192.8	177.6	164.1	151.2
Avg.	88.8	85.9	92.4	79.4	0.06	0.06	-0.06	-0.06	6.4	6.4	202.0	197.9	154.5	151.2
Std Dv	1.0	1.0	1.0	1.2	0.58	0.52	0.14	0.14	0.3	0.5	16.7	17.2	7.9	0.0

TABLE NO. B.4-2.3

SIKORSKY S-76 SPIRIT HELICOPTER

BOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (ACTUAL)				TRACKING DATA (REFERENCE)			
	EPNL	NEL	PNLTH	GBAM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS																		
10	94.4	91.0	99.7	86.9	2.36	2.21	-0.60	-0.56	5.9	5.4	179.7	141.7	114.4	90.2	179.7	141.7	114.4	90.2
11	94.1	90.9	100.1	86.6	2.67	2.56	-0.70	-0.70	6.1	6.1	191.0	146.7	117.5	90.2	191.0	146.7	117.5	90.2
16	94.8	91.3	99.5	85.8	0.38	0.39	-0.13	-0.14	5.8	6.1	140.7	133.6	95.0	90.2	140.7	133.6	95.0	90.2
17											NO TRACKING DATA							
Avg.	94.4	91.1	99.8	86.4	1.80	1.70	-0.48	-0.47	5.9	5.9	170.5	140.7	108.9	90.2	170.5	140.7	108.9	90.2
Std Dev	0.5	0.3	0.4	0.8	1.76	1.62	0.43	0.41	0.2	0.6	37.3	9.3	17.2	0.0	37.3	9.3	17.2	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS																		
8	89.2	86.8	92.1	80.2	0.30	0.33	-0.14	-0.14	6.4	6.2	294.4	279.9	223.2	212.1	294.4	279.9	223.2	212.1
9	87.4	84.9	90.6	77.9	1.30	1.22	-0.39	-0.40	6.8	7.0	291.0	254.7	242.4	212.1	291.0	254.7	242.4	212.1
14	88.8	86.2	91.6	79.5	0.42	0.44	-0.17	-0.16	6.5	6.2	293.4	276.0	225.5	212.1	293.4	276.0	225.5	212.1
15	87.6	85.1	90.4	77.8	0.73	0.71	-0.26	-0.26	7.0	6.9	290.8	266.7	231.3	212.1	290.8	266.7	231.3	212.1
Avg.	88.3	85.1	91.2	78.8	0.69	0.67	-0.24	-0.24	6.7	6.6	292.4	269.3	230.6	212.1	292.4	269.3	230.6	212.1
Std Dev	1.1	1.1	1.0	1.5	0.55	0.49	0.14	0.15	0.4	0.5	2.2	13.7	10.5	0.0	2.2	13.7	10.5	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS																		
1	85.7	83.3	87.8	75.6	1.04	0.99	-0.33	-0.33	6.9	6.8	597.0	534.4	339.1	303.6	597.0	534.4	339.1	303.6
2	86.3	84.2	86.1	75.3	0.19	0.21	-0.13	-0.12	7.6	6.9	369.6	335.3	315.8	303.6	369.6	335.3	315.8	303.6
3	85.5	83.4	87.0	75.0	0.58	0.59	-0.24	-0.24	7.4	7.2	416.0	385.6	327.4	303.6	416.0	385.6	327.4	303.6
4	87.3	84.9	88.4	77.0	0.47	0.50	-0.21	-0.20	7.2	6.7	418.5	391.1	324.9	303.6	418.5	391.1	324.9	303.6
52	86.9	84.7	88.0	76.4	0.51	0.48	-0.17	-0.16	7.2	6.8	352.2	333.7	326.4	303.6	352.2	333.7	326.4	303.6
53	84.7	82.2	86.7	74.0	1.06	0.95	-0.30	-0.30	7.0	7.3	365.2	331.6	334.4	303.6	365.2	331.6	334.4	303.6
54	88.5	85.9	90.7	79.1	1.44	1.21	-0.27	-0.25	6.4	5.8	946.3	856.8	335.3	303.6	946.3	856.8	335.3	303.6
55	86.2	83.9	87.5	75.4	0.35	0.34	-0.13	-0.13	7.3	7.6	362.1	347.7	316.2	303.6	362.1	347.7	316.2	303.6
Avg.	86.4	84.1	87.8	76.0	0.70	0.66	-0.22	-0.22	7.1	6.9	478.4	442.0	326.7	303.6	478.4	442.0	326.7	303.6
Std Dev	1.3	1.2	1.5	1.7	0.46	0.38	0.08	0.08	0.4	0.6	221.6	194.4	9.7	0.0	221.6	194.4	9.7	0.0

TABLE NO. B-4-3.3

SIKORSKY S-76 SPIRIT HELICOPTER

BOT/TSC
12/22/81

CORRECTION DATA - HALF ROTOR RPM 1072

JUNE 25, 1980

SITE: 3

CENTERLINE - 150 N. EAST

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPML	MEL	PMELTH	GBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
5	81.6	79.4	81.2	69.1	0.66	0.63	-0.28	-0.28	7.9	7.8	923.9	851.3	494.9	456.0
6											NO TRACKING DATA			
7	82.5	80.6	83.1	71.5	0.67	0.67	-0.27	-0.26	7.3	7.2	629.3	578.4	496.1	456.0
12											NO TRACKING DATA			
13	80.7	79.0	81.7	70.1	0.30	0.36	-0.18	-0.18	7.0	7.0	575.4	542.2	483.9	456.0
38	84.0	81.9	83.9	73.2	0.04	0.07	-0.10	-0.10	6.9	6.7	583.7	563.7	472.2	456.0
39	81.4	79.5	80.9	69.4	0.27	0.32	-0.19	-0.19	7.8	7.6	637.4	602.5	482.4	456.0
Avg.	82.0	80.1	82.2	70.7	0.39	0.41	-0.20	-0.20	7.4	7.3	670.0	627.6	485.9	456.0
Std Dev	1.5	1.4	1.5	1.3	0.31	0.28	0.09	0.08	0.5	0.5	166.9	146.6	11.4	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
34	81.6	79.7	80.7	69.6	-0.11	-0.21	-0.06	-0.06	7.7	7.5	770.9	758.0	618.8	608.4
35	81.5	79.5	80.5	68.4	1.80	1.52	-0.52	-0.52	8.0	8.0	1606.8	1384.5	706.1	608.4
36	81.1	79.0	80.2	69.4	0.17	0.18	-0.15	-0.14	7.3	6.8	767.9	732.8	637.5	608.4
37	79.9	77.9	78.7	67.0	0.38	0.31	-0.18	-0.18	7.7	7.6	674.4	638.4	642.6	608.4
Avg.	81.0	79.0	80.0	68.6	0.56	0.45	-0.23	-0.22	7.7	7.5	955.0	878.4	651.2	608.4
Std Dev	1.0	1.0	1.1	1.4	1.04	0.91	0.25	0.25	0.3	0.6	271.7	216.0	46.5	0.0
2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS														
30											NO TRACKING DATA			
31	-	74.8	75.9	64.4	0.32	0.00	-	-0.10	-	7.0	871.5	843.1	786.5	760.8
32	-	77.7	77.4	66.6	0.10	-0.33	-	-0.03	-	7.4	950.1	939.9	789.0	760.8
33	-	75.5	76.3	64.3	0.49	0.04	-	-0.14	-	7.5	1234.2	1184.0	793.1	760.8
Avg.	-	76.0	76.5	65.1	0.30	-0.10	-	-0.09	-	7.3	1018.6	989.0	782.8	760.8
Std Dev	-	2.1	1.1	1.8	0.28	0.29	-	0.08	-	0.4	147.1	154.0	17.6	0.0

TABLE NO. B.5-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980

CENTERLINE - 150 M. EAST

SITE: 3

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	MEL	PWLTH	GRAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS															
56	100.7	76.9	104.9	91.4	0.90	0.85	-0.29	-0.28	7.2	6.9	221.1	201.5	97.0	90.2	
57	100.1	95.8	104.5	90.2	0.73	0.70	-0.21	-0.21	6.3	6.2	199.8	191.7	97.4	90.2	
58	100.9	97.4	104.8	91.1	1.49	1.41	-0.46	-0.47	7.1	7.3	282.1	242.9	104.8	90.2	
59	100.0	95.9	103.8	89.9	0.62	0.60	-0.19	-0.20	6.7	7.1	169.5	158.7	96.4	90.2	
Avg.	100.4	96.5	104.5	90.7	0.93	0.89	-0.29	-0.29	6.8	6.9	195.6	176.2	99.4	90.2	
Std Dv	0.5	1.0	0.6	0.8	0.47	0.44	0.15	0.15	0.5	0.5	89.9	74.0	4.6	0.0	
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS															
60	95.3	91.8	97.3	84.1	0.67	0.63	-0.21	-0.20	7.3	7.1	613.4	574.7	226.4	212.1	
61	94.8	91.3	97.5	84.2	0.72	0.68	-0.21	-0.21	6.8	6.6	NO TRACKING DATA				212.1
62	95.2	91.8	96.3	82.6	-0.28	-0.25	0.07	0.07	7.6	8.1	647.3	660.0	208.1	212.1	
63															
Avg.	95.1	91.6	97.0	83.6	0.37	0.35	-0.12	-0.11	7.3	7.3	498.7	484.6	220.8	212.1	
Std Dv	0.4	0.4	0.9	1.3	0.80	0.74	0.23	0.22	0.7	1.0	323.4	330.8	15.7	0.0	
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS															
64	92.5	89.3	94.4	81.5	-0.12	-0.10	0.01	0.01	6.5	6.1	616.4	618.9	302.4	303.6	
65											NO TRACKING DATA				303.6
66	91.7	88.5	92.4	79.5	-0.05	-0.04	0.00	0.00	6.8	6.6	310.5	310.9	303.3	303.6	
67	91.3	88.0	92.1	78.6	-0.06	-0.05	0.01	0.01	7.3	7.5	544.8	545.8	303.0	303.6	
Avg.	91.8	88.6	93.0	79.9	-0.08	-0.06	0.01	0.01	6.9	6.7	490.6	491.8	302.9	303.6	
Std Dv	0.9	0.9	1.7	2.1	0.05	0.05	0.01	0.01	0.6	1.0	226.2	227.6	0.7	0.0	

TABLE NO. B.4-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

NOT/ISC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SITE: 4

SIDELINE - 164 N. NORTH

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPWL	MEL	PHLTH	GBAN	$\wedge(1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A))$	$\wedge(1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A))$	$\wedge(1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A))$	$\wedge(1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A))$	K(P)	K(A)	SR	CPA	SEB	CPAR
APPROACH														
40	95.1	92.4	93.9	83.3	0.35	0.35	-0.15	-0.14	7.4	6.9	244.5	233.6	199.9	191.0
42	94.8	92.2	93.9	81.4	-0.17	-0.12	0.01	0.01	7.8	7.7	331.1	332.1	190.4	191.0
44	93.5	92.4	96.4	83.7	-0.34	-0.29	0.97	0.07	6.7	6.5	229.3	235.0	186.3	191.0
46	96.3	93.6	98.1	84.8	0.26	0.27	-0.09	-0.10	6.2	6.5	233.1	225.3	197.5	191.0
48	94.2	91.5	93.3	82.3	-0.16	-0.13	0.02	0.03	6.6	6.9	226.1	228.0	189.4	191.0
50											NO TRACKING DATA			
Avd.	95.2	92.4	93.9	83.1	-0.01	0.02	-0.03	-0.03	7.0	6.9	252.8	250.8	192.7	191.0
Std Bv	0.9	0.9	1.8	1.5	0.35	0.32	0.10	0.10	0.7	0.6	51.2	52.7	6.6	0.0
TAKEOFF														
41	93.4	90.0	95.4	81.2	1.14	1.09	-0.39	-0.41	7.4	7.9	238.0	211.0	203.6	180.5
43	93.5	90.0	95.6	81.2	1.31	1.26	-0.38	-0.39	6.4	6.6	225.5	196.9	206.7	180.5
45											NO TRACKING DATA			
47	92.7	89.4	94.4	81.1	0.71	0.69	-0.25	-0.25	7.4	7.5	211.5	195.7	195.0	180.5
49	92.7	89.1	94.7	81.7	0.96	0.92	-0.32	-0.30	7.4	7.0	202.5	183.1	199.5	180.5
51	92.9	89.7	94.7	81.5	0.71	0.68	-0.23	-0.24	7.1	7.2	217.5	201.7	194.6	180.5
Avd.	93.0	89.6	95.0	81.4	0.97	0.93	-0.31	-0.32	7.1	7.2	219.0	197.7	199.9	180.5
Std Bv	0.4	0.4	0.6	0.3	0.31	0.29	0.06	0.09	0.5	0.6	15.7	11.7	6.1	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS														
18	90.0	87.2	90.7	77.8	-0.35	-0.33	0.05	0.05	7.5	7.5	274.3	280.6	209.7	212.9
19	90.0	87.6	93.0	80.1	0.64	0.64	-0.22	-0.24	6.5	6.9	243.3	224.9	230.4	212.9
20											NO TRACKING DATA			
21	89.6	87.4	92.5	79.9	0.47	0.46	-0.18	-0.19	6.9	7.0	250.4	235.6	226.3	212.9
22	89.2	86.4	90.6	77.7	-0.92	-0.88	0.22	0.21	7.4	7.3	268.8	287.7	199.0	212.9
23	89.9	87.4	92.4	80.0	0.93	0.90	-0.33	-0.32	7.3	7.1	275.2	247.7	236.5	212.9
Avd.	89.8	87.2	91.8	79.1	0.15	0.16	-0.09	-0.10	7.1	7.1	262.8	255.3	220.4	212.9
Std Bv	0.4	0.5	1.3	1.4	0.88	0.85	0.26	0.25	0.5	0.3	17.4	31.9	18.0	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS														
25	90.7	88.5	94.2	81.6	0.92	0.86	-0.28	-0.30	6.4	6.7	252.7	228.4	235.5	212.9
26	89.7	87.2	91.4	78.4	-0.51	-0.52	0.10	0.11	7.1	7.5	261.8	270.8	205.9	212.9
27	90.4	88.3	93.7	81.4	0.49	0.45	-0.18	-0.18	6.9	7.1	249.6	235.2	226.0	212.9
28	89.8	87.2	91.7	78.7	-0.48	-0.53	0.11	0.11	7.1	7.4	258.1	267.5	205.5	212.9
29	91.4	88.7	95.8	82.2	1.50	1.27	-0.35	-0.39	5.8	6.6	268.3	233.9	244.2	212.9
Avd.	90.4	88.0	93.4	80.5	0.38	0.31	-0.12	-0.13	6.7	7.1	258.1	247.2	223.4	212.9
Std Bv	0.8	0.8	2.1	2.0	1.01	0.94	0.25	0.27	0.4	0.5	8.5	23.4	20.1	0.0

TABLE NO. E-4-2.4

SINKSAY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/91

CORRECTION DATA - MAIN ROTOR RPM 107Z

JUNE 25, 1980

SITE: 4

SIDELINE - 164 M. NORTH

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)			
EV	EPNL	NEL	PNLTH	QBSM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(F))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SSR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
10	93.8	90.0	97.0	83.6	0.62	0.61	-0.23	-0.22	7.1	6.9	193.4	181.3	188.6	175.0
11	94.1	91.8	97.9	85.4	1.05	1.00	-0.33	-0.34	6.7	6.9	271.4	242.3	196.0	175.0
16	94.1	90.4	96.2	84.5	0.89	0.85	-0.29	-0.29	6.7	6.6	241.0	218.3	193.2	175.0
17									NO TRACKING DATA					
Avg.	94.0	90.8	97.7	84.5	0.85	0.82	-0.28	-0.28	6.8	6.8	235.9	213.9	192.6	175.0
Std Dev	0.3	1.3	0.9	1.3	0.31	0.28	0.07	0.09	0.3	0.2	54.1	43.5	5.3	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
8	91.1	88.5	92.4	80.1	0.09	0.15	-0.10	-0.10	7.5	7.5	290.0	280.9	268.2	259.8
9	91.9	89.0	95.4	81.9	1.54	1.41	-0.43	-0.46	6.6	7.1	369.8	310.4	302.0	259.8
14	89.7	87.1	91.6	79.2	-0.07	-0.07	-0.04	-0.04	7.0	7.1	317.8	314.1	262.9	259.8
15	90.4	87.6	94.1	80.7	0.71	0.70	-0.23	-0.25	6.3	6.8	351.6	322.7	283.0	259.8
Avg.	90.8	88.1	93.4	80.5	0.57	0.55	-0.20	-0.21	6.9	7.1	330.1	307.0	279.0	259.8
Std Dev	1.2	1.0	2.1	1.4	0.89	0.81	0.21	0.23	0.6	0.4	39.8	22.3	21.4	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
1	89.4	86.5	91.2	78.8	1.22	1.12	-0.39	-0.37	7.3	6.9	494.6	437.9	382.5	338.6
2	88.5	85.8	88.1	75.8	-0.16	-0.16	-0.02	-0.02	7.5	7.6	420.1	417.8	340.5	338.6
3	89.5	86.9	90.9	78.0	0.58	0.58	-0.25	-0.25	7.5	7.7	460.3	427.0	365.0	338.6
4	88.7	86.2	88.6	76.3	0.24	0.22	-0.14	-0.14	7.9	7.8	479.1	459.3	353.2	338.6
52	86.9	84.5	87.2	75.1	-0.22	-0.15	0.01	0.01	7.3	7.1	349.1	350.4	337.4	338.6
53	88.7	86.0	90.2	77.9	1.43	1.27	-0.39	-0.37	7.2	7.0	419.2	370.7	382.9	338.6
54	87.8	85.2	88.9	76.6	0.48	0.45	-0.15	-0.14	7.0	6.7	784.8	747.2	355.6	338.6
55	88.7	85.8	93.1	79.6	0.60	0.55	-0.14	-0.15	5.7	6.1	440.6	415.7	359.0	338.6
Avg.	88.5	85.9	89.8	77.3	0.52	0.48	-0.18	-0.18	7.2	7.1	481.6	453.2	359.5	338.6
Std Dev	0.9	0.8	2.1	1.7	0.63	0.57	0.16	0.15	0.7	0.6	141.1	133.8	18.3	0.0

TABLE NO. E.4-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

CORRECTION DATA - MAIN ROTOR RPM 1072

DOT/TSC
12/22/81

JUNE 25, 1980

SITE: 4

SIDELINE - 164 ft. NORTH

CORRECTED					CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	NEL	FNLTH	dBdM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS													
5	85.1	82.6	85.9	73.2	0.90	0.81	-0.30	-0.30	589.9	536.3	527.9	480.0	
6									NO TRACKING DATA				
7	85.9	83.0	86.8	72.8	0.82	0.73	-0.28	-0.30	569.8	521.1	524.8	480.0	
12									NO TRACKING DATA				
38	84.4	82.5	82.9	71.6	-0.31	-0.17	-0.04	-0.04	502.9	497.1	485.6	480.0	
39	85.1	82.6	86.1	73.7	0.36	0.40	-0.18	-0.19	615.1	578.7	510.2	480.0	
Avg.	85.1	82.7	85.4	72.8	0.44	0.44	-0.20	-0.20	569.4	533.3	512.1	480.0	
Std Dv	0.7	0.3	2.2	1.1	0.68	0.55	0.15	0.15	58.9	42.0	23.6	0.0	
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS													
34	83.5	81.4	81.5	69.7	-0.09	-0.14	-0.07	-0.07	721.1	706.8	639.3	626.6	
35	83.3	80.9	82.2	70.1	-0.03	-0.10	-0.08	-0.08	1009.9	985.5	642.1	626.6	
36	-	80.9	81.0	69.2	0.06	0.12	-	-0.14	685.0	657.2	653.1	626.6	
37	83.4	81.1	82.4	70.0	0.38	0.29	-0.18	-0.18	736.1	697.2	661.6	626.6	
Avg.	83.4	81.1	81.8	69.7	0.08	0.04	-0.11	-0.12	788.0	761.7	649.0	626.6	
Std Dv	0.1	0.3	0.8	0.5	0.26	0.25	0.09	0.06	94.3	95.1	12.6	0.0	
2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS													
30									NO TRACKING DATA				
31	80.3	77.6	81.2	68.6	0.72	0.31	-0.17	-0.17	1135.7	1070.1	823.0	775.4	
32	82.5	79.9	80.0	67.9	0.37	-0.18	-0.05	-0.05	949.9	838.4	786.1	775.4	
33	81.8	79.0	80.7	69.3	0.68	0.28	-0.20	-0.19	1486.0	1397.9	824.3	775.4	
Avg.	81.5	78.8	80.6	68.6	0.59	0.14	-0.14	-0.14	1157.2	1102.1	811.1	775.4	
Std Dv	1.6	1.7	0.9	1.0	0.27	0.39	0.11	0.11	307.3	263.7	30.7	0.0	

TABLE NO. B-5-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

SITE: 4		SYDLINE - 164 M. NORTH				JUNE 25, 1980								
CORRECTED					CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS) (ACTUAL)				
EV	EPNL	NEL	PHLTH	DEAM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CFA	SRR	CFAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
56	97.5	93.5	101.0	87.8	-0.14	-0.12	0.03	0.02	6.6	5.1	193.1	194.8	173.5	175.0
57	98.6	95.3	102.6	89.1	-0.43	-0.39	0.09	0.10	5.8	6.4	182.9	189.8	168.6	175.0
58	96.7	92.8	99.6	86.5	-0.77	-0.74	0.20	0.20	6.6	6.6	248.1	265.8	163.4	175.0
59	99.7	96.4	102.0	87.7	0.43	0.42	-0.15	-0.13	7.4	6.6	186.5	178.1	163.3	175.0
Avg.	98.1	94.5	101.3	88.3	-0.23	-0.21	0.04	0.05	6.6	6.4	202.6	207.1	172.2	175.0
Std Dev	1.6	2.0	1.6	1.7	0.62	0.60	0.18	0.17	0.8	0.3	37.5	48.7	10.4	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
60	94.8	92.0	95.6	82.5	-1.56	-1.47	0.38	0.39	7.5	7.5	870.7	977.5	231.4	259.8
61	94.9	91.6	95.9	83.5	-0.79	-0.74	0.22	0.20	7.0	6.4	246.2	264.4	241.9	259.8
62	95.3	92.6	95.6	83.6	0.07	0.07	-0.04	-0.04	8.0	7.7	323.0	319.3	262.8	259.8
Avg.	95.0	92.0	95.7	83.2	-0.76	-0.71	0.19	0.18	7.5	7.2	480.0	520.4	245.4	259.8
Std Dev	0.4	0.7	0.2	0.9	1.15	1.09	0.30	0.30	0.7	1.1	481.6	325.5	22.6	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
64	98.7	93.2	97.4	84.5	-0.46	-0.41	0.11	0.11	7.1	7.3	520.3	538.9	326.9	338.6
65	95.3	92.4	95.3	83.8	-0.44	-0.41	0.12	0.11	7.3	6.9	332.1	344.6	326.4	338.6
66	-	90.4	92.8	80.2	-0.07	-0.04	-	0.00	-	7.6	340.8	341.0	338.4	338.6
67	95.5	92.0	95.2	82.8	-0.32	-0.29	0.12	0.07	7.2	7.3	397.7	408.1	330.6	338.6
Avg.	95.5	92.0	95.2	82.8	-0.32	-0.29	0.12	0.07	7.2	7.3	397.7	408.1	330.6	338.6
Std Dev	0.3	2.0	3.2	3.2	0.31	0.30	0.01	0.09	6.2	0.5	150.2	160.2	9.6	0.0

TABLE NO. B.4-1.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOI/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	GBAM	$\Delta 1(F)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CFA	SRR	CPAR
APPROACH														
40	92.0	88.7	90.8	76.5	-0.18	-0.14	0.01	0.01	7.6	7.6	269.8	270.7	120.3	191.0
42	92.2	89.4	91.6	79.1	-0.55	-0.49	0.12	0.12	6.9	6.7	251.7	261.9	183.5	191.0
44	93.8	90.3	92.6	78.4	0.33	0.33	-0.14	-0.14	7.7	7.9	198.9	191.0	198.8	191.0
46	93.4	90.1	91.1	77.2	-0.15	-0.13	0.03	0.03	8.1	8.4	189.7	191.3	189.4	191.0
48	93.7	90.6	92.4	80.5	0.76	0.72	-0.27	-0.24	7.8	7.0	420.2	388.4	206.6	191.0
50											NO TRACKING DATA			
Avs.	93.0	89.2	91.7	78.3	0.04	0.06	-0.05	-0.04	7.6	7.6	266.0	260.6	193.7	191.0
Std Bv	1.0	0.9	0.9	1.8	0.59	0.54	0.18	0.17	0.5	0.8	107.0	93.2	10.4	0.0
TAKEOFF														
41	89.2	86.9	91.3	78.8	0.81	0.79	-0.28	-0.29	7.2	7.4	199.2	182.3	197.3	180.5
43	89.3	87.1	91.4	78.8	1.11	1.07	-0.35	-0.36	6.8	7.0	206.6	183.6	263.0	180.5
45											NO TRACKING DATA			
47	90.2	88.1	92.6	80.9	1.27	1.23	-0.40	-0.39	6.9	6.8	213.0	186.6	206.0	180.5
49	90.1	88.1	92.7	80.9	1.29	1.24	-0.41	-0.42	7.1	7.2	208.7	182.6	206.3	180.5
51	89.8	87.7	91.5	79.8	1.17	1.12	-0.43	-0.38	7.5	7.2	207.8	184.2	203.7	180.5
Avs.	89.7	87.5	91.9	79.8	1.13	1.09	-0.37	-0.37	7.1	7.1	207.1	183.8	203.3	180.5
Std Bv	0.5	0.6	0.8	1.2	0.22	0.21	0.06	0.06	0.3	0.2	5.8	2.0	4.2	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 199 KTS														
18	89.6	87.5	90.3	77.9	-0.17	-0.08	-0.02	-0.02	7.4	7.2	219.4	218.0	214.4	212.9
19	86.2	83.7	89.1	75.7	-0.72	-0.70	0.15	0.15	6.8	7.1	270.4	284.2	202.6	212.9
20											NO TRACKING DATA			
21	88.7	85.8	90.8	77.5	-1.07	-1.01	0.26	0.27	7.1	7.3	264.7	288.1	195.6	212.9
22	89.1	87.1	90.8	78.6	-0.60	-0.47	0.10	0.09	7.2	6.9	211.7	218.3	206.5	212.9
23	85.7	83.6	87.5	74.9	-0.51	-0.41	0.07	0.07	7.1	7.5	265.6	271.3	208.5	212.9
Avs.	87.9	85.5	89.7	76.9	-0.61	-0.53	0.11	0.11	7.1	7.2	246.4	256.0	205.5	212.9
Std Bv	2.1	2.1	1.6	1.8	0.38	0.40	0.12	0.12	0.2	0.3	32.7	40.5	8.0	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS														
24											NO TRACKING DATA			
25	86.7	84.5	89.4	77.5	-0.32	-0.23	0.02	0.02	7.0	6.7	215.8	217.6	211.2	212.9
26	90.7	88.6	91.7	79.6	-0.25	-0.19	0.01	0.01	7.4	7.4	236.3	237.0	212.3	212.9
27	86.1	84.0	89.0	76.7	-0.79	-0.85	0.18	0.19	6.6	6.8	245.9	262.3	199.6	212.9
28	90.4	88.4	91.7	79.2	-0.27	-0.23	0.03	0.03	7.0	7.4	226.2	228.1	211.1	212.9
29	85.4	83.3	88.2	75.3	-1.42	-1.27	0.30	0.33	6.6	7.2	245.4	272.3	191.9	212.9
Avs.	87.9	85.8	90.0	77.7	-0.65	-0.55	0.11	0.12	6.9	7.1	233.9	243.5	205.2	212.9
Std Bv	2.9	2.9	1.9	2.1	0.61	0.56	0.15	0.16	0.4	0.4	14.9	26.7	10.5	0.0

TABLE NO. B.4-2.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107%

SITE: 5				SIDELINE - 150 M. SOUTH				JUNE 25, 1980						
CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	MEL	PNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
10	93.0	91.1	95.8	83.5	0.57	0.54	-0.21	-0.21	7.1	7.0	253.5	236.7	187.4	175.0
11	90.0	83.9	94.6	81.1	0.42	0.43	-0.16	-0.17	6.2	6.6	227.3	214.5	185.4	175.0
16	92.4	90.9	94.1	82.4	-1.28	-1.08	0.29	0.29	7.1	7.3	207.2	227.3	159.6	175.0
17											NO TRACKING DATA			
Avg.	91.8	89.7	94.8	82.3	-0.10	-0.04	-0.03	-0.03	6.8	7.0	229.3	226.2	177.5	175.0
Std Dv	2.2	3.3	1.2	1.7	1.45	1.28	0.39	0.39	0.7	0.5	32.8	15.7	22.0	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
8	90.6	88.4	91.2	78.4	-0.10	-0.02	-0.05	-0.05	7.5	7.7	275.1	270.8	263.9	259.8
9	86.2	84.1	87.6	76.0	-0.20	-0.14	-0.02	-0.02	7.7	7.4	325.2	323.0	261.6	259.8
14	86.7	88.2	91.4	78.7	0.46	0.47	-0.21	-0.21	7.6	7.7	298.7	280.2	276.9	259.8
15	86.5	84.0	89.0	76.7	-0.09	-0.01	-0.07	-0.07	6.9	7.0	334.6	327.4	265.5	259.8
Avg.	88.5	86.2	89.8	77.4	0.02	0.07	-0.09	-0.09	7.4	7.4	308.4	300.4	267.0	259.8
Std Dv	3.1	3.0	2.2	1.6	0.37	0.33	0.10	0.10	0.4	0.4	33.0	35.5	8.4	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
1	85.4	82.9	87.3	74.7	0.52	0.53	-0.21	-0.22	6.9	7.2	401.0	373.5	363.5	338.6
2	88.6	86.2	88.1	75.4	0.39	0.34	-0.18	-0.18	7.9	8.0	379.7	360.3	356.9	338.6
3	84.6	82.5	85.7	73.1	-0.02	0.06	-0.08	-0.09	7.2	7.5	347.9	339.8	347.6	338.6
4	88.7	86.2	88.7	75.9	0.43	0.46	-0.21	-0.22	7.7	7.9	403.6	378.8	360.8	338.6
52	88.7	86.4	88.9	76.9	1.03	0.95	-0.32	-0.32	7.8	7.6	409.4	372.0	372.6	338.6
53	85.3	83.2	87.0	75.0	0.10	0.13	-0.07	-0.07	6.6	6.8	506.9	495.0	346.8	339.6
54	90.1	87.3	90.7	78.1	1.95	1.62	-0.41	-0.40	7.4	7.3	1019.9	899.4	383.9	339.6
55	84.8	82.4	86.1	73.9	-0.26	-0.19	0.02	0.02	6.5	6.3	397.2	399.5	336.6	338.6
Avg.	87.0	84.6	87.8	75.4	0.52	0.49	-0.18	-0.18	7.2	7.3	483.2	452.2	358.6	338.6
Std Dv	2.4	2.2	1.8	1.7	0.75	0.62	0.15	0.15	0.6	0.6	96.2	201.6	16.4	0.0

TABLE NO. B.4-3.5

SIKORSKY S-76 SPIRIT HELICOPTER

DGI/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

JUNE 25, 1980

SITE: 5

SIDELINE - 150 M. SOUTH

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	MEL	PNLTH	QZAM	$\Delta 1(F)$	$\Delta 1(A)$	$\Delta 2(F)$	$\Delta 2(A)$	K(P)	K(A)	SR	CFA	SRR	CPAR
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
5	81.9	80.2	81.7	70.4	0.26	0.32	-0.19	-0.19	7.6	7.5	639.9	604.2	508.4	480.0
6											NO TRACKING DATA			
7	82.1	80.3	82.9	70.6	0.51	0.53	-0.23	-0.24	7.1	7.4	562.9	522.8	516.9	480.0
12											NO TRACKING DATA			
13	81.4	79.7	82.1	69.6	-0.12	0.00	-0.09	-0.10	7.1	7.8	532.2	516.1	495.0	480.0
38	84.8	82.6	84.0	72.3	0.36	0.35	-0.19	-0.19	7.7	7.8	647.8	612.2	507.9	480.0
39	81.8	80.1	82.0	71.3	-0.27	-0.12	-0.07	-0.07	7.2	6.6	655.9	640.6	491.5	480.0
Avg.	82.4	80.0	82.5	70.6	0.15	0.22	-0.15	-0.16	7.3	7.4	607.7	579.2	503.9	480.0
Std Dev	1.6	1.4	1.1	1.2	0.38	0.31	0.08	0.08	0.4	0.6	65.0	64.9	12.1	0.0
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
34	83.1	80.6	81.3	69.5	-0.10	-0.18	-0.06	-0.06	7.3	7.7	783.7	769.5	638.1	626.6
35	80.8	79.2	80.2	69.2	-0.17	-0.10	-0.10	-0.09	7.6	7.3	775.2	753.2	645.0	626.6
36	82.5	80.3	80.8	69.1	0.21	0.13	-0.14	-0.14	7.9	7.8	718.4	699.5	652.8	626.6
37	-	78.9	80.4	69.0	0.17	0.24	-	-0.18	-	7.5	855.3	809.1	662.4	626.6
Avg.	82.1	79.8	80.7	69.2	0.03	0.02	-0.10	-0.12	7.6	7.6	783.2	755.3	649.6	626.6
Std Dev	1.7	1.0	0.6	0.5	0.23	0.24	0.06	0.07	0.5	0.3	68.8	61.0	12.8	0.0
2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
30											NO TRACKING DATA			
31	-	75.8	75.8	64.2	-0.07	-0.33	-	-0.02	-	7.8	834.7	828.7	781.0	775.4
32	-	78.7	78.1	65.7	0.13	-0.37	-	-0.01	-	8.0	918.9	915.8	778.1	775.4
33	78.4	76.6	76.6	64.6	0.28	-0.03	-0.11	-0.11	7.7	7.9	879.1	851.9	800.2	775.4
Avg.	78.4	77.0	76.8	64.8	0.11	-0.24	-0.11	-0.05	7.7	7.9	877.6	865.4	786.4	775.4
Std Dev	-	2.1	1.7	1.1	0.25	0.26	-	0.08	-	0.1	59.6	63.8	17.0	0.0

TABLE NO. B.5-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980														
SITE: 5														
SIDELINE - 150 M. SOUTH														
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
										(ACTUAL)		(REFERENCE)		
EPNL	NEL	PMLTH	dBdM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
56	98.9	95.5	103.0	90.4	1.08	1.03	-0.30	-0.28	6.3	5.9	199.8	179.1	195.3	175.0
57	98.6	95.0	101.6	88.9	0.78	0.75	-0.24	-0.21	6.9	6.1	193.4	178.3	189.8	175.0
58	98.7	95.7	103.0	90.4	1.25	1.19	-0.36	-0.35	6.6	6.4	204.3	180.0	198.6	175.0
59	98.1	94.4	100.6	87.1	0.07	0.07	-0.03	-0.03	6.9	6.9	266.5	263.6	176.9	175.0
Avg.	98.6	95.1	102.0	89.2	0.79	0.76	-0.23	-0.22	6.7	6.3	216.0	200.2	190.2	175.0
Std Dv	0.4	0.7	1.4	1.9	0.64	0.61	0.18	0.17	0.4	0.5	41.6	51.7	11.7	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
60	96.1	92.7	98.6	85.5	1.67	1.50	-0.41	-0.39	6.7	6.4	378.2	328.1	299.5	259.8
61											NO TRACKING DATA			
62	94.7	91.3	96.9	84.2	1.51	1.38	-0.42	-0.38	7.2	6.7	301.1	263.8	296.5	259.8
63	96.7	94.0	97.9	86.2	-0.14	-0.13	0.03	0.03	7.2	6.5	258.5	261.1	257.3	259.8
Avg.	95.9	92.7	97.8	85.3	1.01	0.92	-0.27	-0.25	7.0	6.5	312.6	284.3	284.4	259.8
Std Dv	1.5	1.9	1.2	1.4	1.42	1.28	0.36	0.34	0.5	0.2	85.8	53.6	33.3	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
64											NO TRACKING DATA			
65											NO TRACKING DATA			
66	92.4	89.7	93.1	80.8	0.40	0.36	-0.12	-0.12	7.7	7.5	351.5	338.8	351.4	338.6
67	94.8	92.3	94.6	83.4	-0.13	-0.11	0.03	0.03	7.9	7.0	337.7	340.5	335.8	338.6
Avg.	93.6	91.0	93.8	82.1	0.13	0.12	-0.04	-0.04	7.8	7.2	344.6	339.6	343.6	338.6
Std Dv	1.7	1.8	1.0	1.9	0.37	0.33	0.11	0.11	0.1	0.4	9.8	1.2	11.0	0.0

TABLE NO. B.4-1.56

SIKORSKY S-76 SPIRIT HELICOPTER

DOI/ISC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

SITE: 56				SIDELINE - 150 N. SOUTH (FLUSH)				JUNE 25, 1980							
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)					
EV	EPNL	MEL	PWL IN	DBW	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	
APPROACH															
40	95.1	92.1	93.6	80.8		-0.22	-0.14	0.01	0.01	7.8	7.7	202.1	202.7	191.1	191.7
42	95.9	93.3	96.2	83.1		-0.57	-0.49	0.12	0.12	7.2	7.1	186.6	194.1	184.3	191.7
44	97.2	94.0	96.6	83.3		0.31	0.32	-0.13	-0.13	7.4	7.4	199.6	191.7	199.6	191.7
46	99.9	96.6	98.1	84.7		-0.15	-0.13	0.03	0.03	7.9	7.9	205.8	207.5	190.2	191.7
48	96.7	93.9	95.2	83.1		0.12	0.14	-0.08	-0.07	8.3	7.8	197.5	193.4	195.8	191.7
50												NO TRACKING DATA			
Avg.	96.9	94.0	95.9	83.0		-0.10	-0.06	-0.01	-0.01	7.7	7.6	198.3	197.9	192.2	191.7
Std Dev	2.1	1.9	1.9	1.6		0.39	0.36	0.11	0.11	0.5	0.4	8.4	7.9	6.7	0.0
TARGET															
41	95.0	91.9	97.6	84.0		0.82	0.80	-0.27	-0.29	7.0	7.6	220.8	202.0	198.0	181.1
43	95.3	92.3	97.2	84.5		1.16	1.11	-0.38	-0.37	7.3	7.1	228.2	202.8	203.9	181.1
45												NO TRACKING DATA			
47	96.3	93.4	99.1	86.7		1.33	1.24	-0.39	-0.39	6.7	6.8	213.7	187.3	206.8	181.1
49	96.3	93.6	98.4	87.0		1.34	1.26	-0.42	-0.38	7.2	6.6	207.7	181.7	207.1	181.1
51												NO TRACKING DATA			
Avg.	95.7	92.8	98.1	85.5		1.16	1.10	-0.36	-0.36	7.1	7.0	217.6	193.4	203.9	181.1
Std Dev	0.8	1.1	1.0	1.9		0.30	0.26	0.08	0.06	0.3	0.5	10.8	12.9	5.1	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS															
18	94.1	91.1	95.5	82.2		-0.18	-0.10	-0.02	-0.02	7.4	7.3	220.3	218.8	215.2	213.8
19	90.9	88.3	93.6	80.6		-0.91	-0.74	0.15	0.15	6.9	7.1	271.6	285.2	203.6	213.8
20												NO TRACKING DATA			
21	90.7	88.5	93.4	80.9		-1.28	-1.09	0.25	0.26	7.0	7.1	241.2	262.3	196.6	213.8
22	94.1	91.1	96.3	83.1		-0.61	-0.49	0.09	0.09	6.9	6.9	212.5	219.2	207.3	213.8
23	90.5	88.2	93.1	80.3		-0.57	-0.43	0.06	0.07	7.0	7.4	266.4	272.0	209.4	213.8
Avg.	92.1	89.4	94.4	81.4		-0.71	-0.57	0.11	0.11	7.0	7.2	242.4	251.5	206.4	213.8
Std Dev	2.1	1.8	1.6	1.4		0.47	0.43	0.12	0.12	0.2	0.2	30.6	35.5	8.0	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS															
24												NO TRACKING DATA			
25	92.0	89.6	95.6	83.3		-0.34	-0.25	0.02	0.02	6.4	6.5	228.1	229.9	212.1	213.8
26	95.5	92.7	97.2	84.4		-0.25	-0.19	0.01	0.01	7.4	7.1	218.7	219.4	213.1	213.8
27	91.4	89.1	94.7	82.2		-0.96	-0.83	0.18	0.19	6.5	6.7	224.5	239.4	200.5	213.8
28	95.0	92.2	97.2	84.1		-0.27	-0.24	0.03	0.03	6.7	6.7	218.1	220.1	211.9	213.8
29	90.9	88.6	93.7	81.1		-1.42	-1.28	0.30	0.31	6.6	6.9	246.1	272.9	192.9	213.8
Avg.	93.0	90.4	95.7	83.0		-0.65	-0.56	0.11	0.11	6.7	6.8	227.1	236.3	206.1	213.8
Std Dev	2.5	2.2	1.8	1.6		0.60	0.56	0.15	0.15	0.4	0.3	13.2	25.4	10.4	0.0

TABLE NO. B.4-2.56

SIKORSKY S-76 SPIRIT HELICOPTER

BOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

JUNE 25, 1980

SITE: 56

SIBELINE - 150 M. SOUTH (FLUSH)

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	MEL	PNL/M	dBAM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CFA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
10	98.1	95.1	10.5	88.3	0.54	0.54	-0.21	-0.21	7.1	7.2	211.3	197.3	188.1	175.6
11	95.1	91.9	99.9	86.8	0.42	0.43	-0.16	-0.16	6.3	6.2	228.0	215.0	186.2	175.6
16	96.3	93.3	99.4	86.0	-1.30	-1.15	0.27	0.28	6.8	7.2	207.8	227.7	160.3	175.6
17											NO TRACKING DATA			
Avg.	96.5	93.4	100.3	87.0	-0.11	-0.06	-0.03	-0.03	6.7	6.8	215.7	213.3	178.2	175.6
Std Dv	2.2	2.3	1.6	1.7	1.46	1.35	0.37	0.38	0.5	0.8	15.3	21.6	22.0	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
8	95.3	92.4	97.1	83.8	-0.10	-0.03	-0.05	-0.05	7.3	7.5	276.0	271.8	264.9	260.8
9	91.4	88.1	93.6	81.3	-0.22	-0.13	-0.02	-0.02	7.2	7.3	298.4	296.3	262.7	260.8
14	94.7	92.0	96.3	83.0	0.46	0.46	-0.21	-0.22	7.6	7.8	331.4	311.1	277.9	260.8
15	91.4	88.8	95.0	82.1	-0.09	-0.02	-0.06	-0.06	6.6	6.8	336.0	328.7	266.5	260.8
Avg.	93.2	90.6	95.5	82.6	0.01	0.07	-0.08	-0.09	7.2	7.3	310.5	302.0	268.0	260.8
Std Dv	2.5	2.3	1.8	1.4	0.37	0.32	0.10	0.11	0.5	0.5	34.8	29.5	8.3	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
1	90.2	87.8	92.4	79.4	0.52	0.53	-0.21	-0.23	6.9	7.4	424.4	395.4	364.6	339.7
2	92.7	90.1	93.4	79.9	0.29	0.33	-0.17	-0.18	7.5	7.9	380.9	361.5	357.9	339.7
3	89.6	87.4	90.9	78.5	-0.06	0.03	-0.08	-0.09	7.2	7.5	400.6	390.2	348.7	339.7
4	92.9	90.4	94.3	80.9	0.45	0.44	-0.20	-0.21	7.2	7.4	443.7	416.4	361.9	339.7
52	93.1	90.5	94.6	81.5	1.05	0.98	-0.30	-0.31	7.3	7.6	493.3	448.4	373.7	339.7
53	90.2	88.0	93.0	79.8	0.11	0.13	-0.07	-0.08	6.4	7.3	472.5	461.3	347.9	339.7
54	94.3	91.4	95.4	83.4	1.83	1.68	-0.35	-0.35	6.4	6.4	1020.8	900.8	385.0	339.7
55	89.7	87.2	91.4	79.1	-0.25	-0.19	0.02	0.02	6.1	7.3	398.6	400.9	337.7	339.7
Avg.	91.6	89.1	93.3	80.3	0.49	0.49	-0.17	-0.18	6.9	7.4	504.3	471.9	359.7	339.7
Std Dv	2.0	1.8	1.9	1.7	0.72	0.64	0.13	0.13	0.5	0.4	89.8	190.4	16.4	0.0

TABLE NO. B.4-3.56

SIKORSKY S-76 SPIRIT HELICOPTER

BOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1071

EV	CORRECTED				CORRECTIONS (DB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	MEL	PWLTN	QMAN	$\Delta 1(P)$	$\Delta 1(G)$	$\Delta 2(P)$	$\Delta 2(G)$	K(P)	K(G)	SR	CPA	SR	CPAR
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
5	86.7	85.1	87.4	75.2	0.27	0.33	-0.18	-0.19	7.4	7.7	612.2	578.0	509.6	481.2
6	86.7	84.9	88.0	75.7	0.51	0.53	-0.23	-0.24	7.2	7.5	583.9	542.4	518.0	481.2
12											NO TRACKING DATA			
13	85.9	84.2	87.6	75.7	-0.13	-0.01	-0.09	-0.09	6.9	7.1	552.9	536.2	496.2	481.2
38	88.7	86.6	86.4	76.1	0.30	0.35	-0.19	-0.19	7.8	7.9	549.4	519.3	509.1	481.2
39	86.3	84.6	88.1	76.0	-0.25	-0.13	-0.07	-0.07	6.4	6.7	626.8	612.2	492.6	481.2
Avs.	86.9	85.1	87.9	75.7	0.14	0.21	-0.15	-0.16	7.1	7.4	585.1	557.6	505.1	481.2
Std Dv	1.2	1.1	0.5	0.4	0.37	0.32	0.08	0.08	0.6	0.6	39.9	43.0	12.1	0.0
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
34	86.7	84.5	86.2	73.7	0.03	-0.20	-0.06	-0.06	7.4	7.6	813.9	799.2	639.3	627.8
35	84.6	83.1	84.6	72.8	-0.20	-0.12	-0.09	-0.10	7.5	7.7	833.0	809.3	646.1	627.8
36	86.1	84.1	85.3	73.0	0.16	0.07	-0.14	-0.14	7.6	7.7	866.2	831.4	654.0	627.8
37	84.7	83.2	84.1	72.6	0.24	0.27	-0.19	-0.19	7.7	7.8	685.1	648.2	663.6	627.8
Avs.	85.5	83.7	85.0	73.0	0.06	0.00	-0.12	-0.12	7.6	7.7	799.5	772.0	650.8	627.8
Std Dv	1.3	0.8	1.1	0.6	0.24	0.26	0.07	0.07	0.2	0.1	97.1	102.4	12.8	0.0
2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
30											NO TRACKING DATA			
31	82.1	80.4	80.8	69.2	-0.02	-0.32	-0.02	-0.02	7.8	8.0	835.8	829.8	782.2	776.6
32	-	82.6	82.2	70.3	-0.15	-0.43	-	-0.01	-	8.0	969.6	966.3	779.3	776.6
33	82.5	80.8	81.9	70.1	0.44	-0.03	-0.10	-0.10	7.2	7.3	899.8	872.0	801.4	776.6
Avs.	82.3	81.2	81.7	69.9	0.09	-0.26	-0.06	-0.04	7.5	7.7	901.8	889.4	787.6	776.6
Std Dv	0.3	1.7	1.1	0.8	0.44	0.29	0.06	0.07	0.4	0.6	66.0	62.0	17.0	0.0

JUNE 25, 1980

TABLE NO. B-5-2.56

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

SITE: S6		SIRELINE - 150 M. SOUTH (FLUSH)		JUNE 25, 1980		TRACKING DATA (METERS)	
CORRECTED		CORRECTIONS (dB)		CONSTANTS		(ACTUAL)	
EV	EPML REL PMLTH	GBAN	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P) K(A)	SR	CPA SRR CPAK
300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS							
56	102.7 99.5 107.3	95.2	1.07	1.03	-0.27	6.1	5.7 200.4 179.7 195.9 175.6
57	102.3 98.9 106.3	93.3	0.77	-0.24	-0.22	7.0	6.4 248.1 228.9 190.4 175.6
58	103.0 100.2 107.2	95.3	1.25	1.20	-0.37	6.8	6.5 204.9 180.6 199.2 175.6
59	101.3 97.8 104.8	91.5	0.07	-0.03	-0.03	6.8	6.5 236.5 233.8 177.6 175.6
Avs.	102.3 99.1 106.4	93.8	0.79	-0.23	-0.22	6.7	6.3 222.5 205.7 190.8 175.6
Std Bv	0.9 1.3 1.4	2.2	0.64	0.18	0.17	0.5	0.5 28.7 34.3 11.5 0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS							
60	100.2 97.0 104.5	91.1	1.63	1.50	-0.38	5.7	6.2 378.9 329.0 300.4 260.8
61	-	96.1 101.5	89.4	1.49	1.38	-	6.5 332.8 291.9 297.4 262.8
62	100.7 98.2 102.5	90.9	-0.15	-0.13	0.03	7.0	6.4 266.6 269.1 258.3 260.8
Avs.	100.4 97.1 102.8	90.5	0.99	0.92	-0.16	6.3	6.4 326.1 296.7 285.3 260.8
Std Bv	0.3 1.6 2.1	1.3	1.40	1.28	0.27	0.9	0.2 79.9 42.7 33.2 0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS							
64	96.7 94.6 98.2	86.7	0.12	0.11	-0.05	7.2	6.9 539.9 531.5 345.1 339.7
65	96.6 94.1 97.7	85.7	0.39	0.37	-0.12	7.4	7.3 368.3 355.0 352.4 339.7
67	98.4 96.0 99.4	88.1	-0.13	-0.11	0.03	7.2	6.8 336.9 339.7 336.7 339.7
Avs.	97.3 94.9 98.4	86.8	0.13	0.12	-0.05	7.2	7.0 415.0 408.7 344.8 339.7
Std Bv	1.4 1.4 1.3	2.7	0.37	0.34	0.11	0.3	0.4 154.5 150.7 11.0 0.0

TABLE NO. B-5-3.56

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

SITE: 56				SIDELINE - 150 N. SOUTH (FLUSH)				JUNE 25, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)				
EV	EPNL	NEL	PWELN	GBAN	$\wedge 1(P) / \wedge 1(A)$	$\wedge 2(P) / \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR		
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
68	93.6	91.2	95.2	83.4	0.42	0.38	-0.10	-0.10	6.4	6.2	568.2	548.4	498.6	481.2
69	96.0	93.4	96.1	85.1	0.00	0.00	-0.01	-0.01	7.2	6.3	492.1	490.6	482.6	481.2
70	93.1	90.5	93.6	81.5	0.31	0.29	-0.08	-0.09	6.7	7.2	561.5	546.1	494.8	481.2
71	96.0	93.5	97.5	86.3	-0.33	-0.31	0.07	0.06	6.3	5.7	474.6	486.7	469.2	481.2
Avg.	94.7	92.2	95.6	84.1	0.10	0.09	-0.03	-0.03	6.7	6.3	524.1	517.9	486.3	481.2
Std Dev	1.9	1.9	2.0	2.5	0.41	0.38	0.09	0.09	0.5	0.8	58.4	41.4	16.3	0.0
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
72									NO TRACKING DATA					
73	92.1	89.4	91.2	79.0	0.09	0.08	-0.04	-0.04	7.6	7.2	640.8	633.6	634.9	627.8
74	91.7	89.6	93.3	82.5	0.48	0.45	-0.11	-0.10	6.3	5.9	1133.9	1090.9	652.5	627.8
75	93.2	90.4	91.6	80.1	0.01	0.01	-0.02	-0.02	7.4	6.9	635.2	632.2	630.7	627.8
Avg.	92.3	89.8	92.0	80.3	0.19	0.18	-0.06	-0.05	7.1	6.7	803.3	785.6	639.3	627.8
Std Dev	1.0	0.7	1.6	2.2	0.36	0.33	0.07	0.06	1.0	0.9	233.8	215.9	16.3	0.0
2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
76	89.0	86.2	86.8	74.6	0.57	0.54	-0.16	-0.16	7.9	7.7	835.3	797.3	813.7	776.6
77									NO TRACKING DATA					
Avg.	89.0	86.2	86.8	74.6	0.57	0.54	-0.16	-0.16	7.9	7.7	835.3	797.3	813.7	776.6
Std Dev														

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B-4-1.6

SINKSKY S-76 SPIRIT HELICOPTER

BOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

SITE: 6

SIDELINE - 384 M. NORTH

JUNE 25, 1980

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPHE	MEL	PW/TH	GBAM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SRK	CPAR
APPROACH														
40	89.8	87.3	89.0	77.1	0.10	0.13	-0.08	-0.08	6.9	6.7	361.6	352.2	315.6	307.4
42	90.0	87.7	90.6	78.4	-0.11	-0.07	-0.01	-0.01	6.2	6.1	432.4	430.2	308.9	307.4
44	90.2	88.0	88.2	76.2	-0.37	-0.32	0.07	0.07	7.7	7.6	310.5	317.2	300.9	307.4
46	90.9	88.8	91.2	79.1	0.09	0.11	-0.05	-0.05	6.4	6.4	380.2	372.8	313.5	307.4
48	88.5	86.0	87.3	74.6	-0.19	-0.16	0.03	0.03	7.3	7.4	316.7	319.3	304.9	307.4
50									NO TRACKING DATA					
Avg.	89.9	87.5	89.3	77.1	-0.10	-0.06	-0.01	-0.01	6.9	6.8	360.3	358.4	308.8	307.4
Std Dv	1.0	1.2	1.9	2.0	0.23	0.22	0.07	0.07	9.7	9.7	57.7	53.6	7.0	0.0
TAKEOFF														
41	89.3	85.5	89.8	74.8	-0.02	0.01	-0.06	-0.06	7.3	7.5	323.3	317.1	306.9	301.0
43	89.2	85.5	90.1	74.9	0.81	0.77	-0.26	-0.26	7.3	7.3	584.4	539.0	326.3	301.0
45									NO TRACKING DATA					
47	89.6	86.1	89.7	76.8	0.07	0.08	-0.06	-0.06	7.7	6.9	330.4	324.2	306.7	301.0
49	88.2	84.4	88.4	75.5	0.21	0.23	-0.10	-0.10	7.6	7.2	319.6	309.7	310.7	301.0
51	88.7	85.3	89.3	75.6	5.07	0.08	-0.07	-0.06	7.5	6.8	319.8	313.6	307.0	301.0
Avg.	89.0	85.3	89.5	75.5	0.23	0.23	-0.11	-0.11	7.5	7.1	375.5	360.7	311.5	301.0
Std Dv	0.7	0.7	0.8	0.9	0.39	0.36	0.10	0.10	9.2	9.3	134.9	115.3	9.7	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS														
18	83.6	82.9	86.5	72.8	-0.59	-0.39	0.03	0.03	6.7	7.2	349.8	353.7	318.0	321.5
19	86.8	84.6	87.4	75.7	0.38	0.38	-0.20	-0.19	7.6	7.2	498.0	459.2	341.3	321.5
20									NO TRACKING DATA					
21	86.8	84.5	88.1	75.7	0.19	0.30	-0.17	-0.17	7.2	7.2	434.9	412.3	339.1	321.5
22	85.0	82.2	85.2	72.4	-0.77	-0.59	0.11	0.11	7.2	7.3	312.9	324.2	310.3	321.5
23	86.4	84.1	86.9	74.7	0.58	0.55	-0.24	-0.24	7.5	7.5	383.0	356.2	345.7	321.5
Avg.	86.1	83.7	86.8	74.3	-0.04	0.05	-0.09	-0.09	7.3	7.3	395.7	383.1	330.9	321.5
Std Dv	0.9	1.2	1.2	1.8	0.70	0.58	0.18	0.18	0.4	0.1	83.9	66.6	18.1	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS														
24									NO TRACKING DATA					
25	87.6	85.8	89.5	77.9	0.13	0.16	-0.11	-0.11	6.8	6.6	386.8	372.6	333.8	321.5
26	86.4	83.8	88.1	75.1	-0.58	-0.46	0.06	0.06	6.5	6.8	321.0	327.6	315.0	321.5
27	87.9	85.9	89.6	77.4	0.32	0.30	-0.16	-0.16	7.3	7.4	361.9	344.4	337.8	321.5
28	86.7	83.8	87.1	74.1	-0.51	-0.45	0.07	0.07	7.4	7.4	325.0	331.8	315.0	321.5
29	88.8	86.6	91.0	79.0	1.17	0.95	-0.33	-0.32	7.1	6.9	397.4	357.4	357.5	321.5
Avg.	87.5	85.2	89.1	76.7	0.11	0.10	-0.09	-0.09	7.0	7.0	358.4	346.8	331.8	321.5
Std Dv	1.1	1.5	1.7	2.3	0.82	0.68	0.19	0.19	0.4	0.5	40.2	21.4	20.5	0.0

TABLE NO. E.4-2.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25-1980												
SIDELINE - 284 N. NORTH												
SITE: 6												
CORRECTED					CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)		
EV	EPML	MEL	PMLTH	GBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SPR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS												
10												
11	89.7	87.1	92.9	79.4	0.35	-0.15	6.6	7.2	NO TRACKING DATA			
16	88.6	85.3	90.5	77.5	0.44	-0.20	7.4	7.2	17.7	320.8	313.4	297.8
17									328.5	308.3	317.3	297.8
NO TRACKING DATA												
AVG.	89.1	84.2	91.7	78.5	0.39	-0.17	7.0	7.2	333.1	314.6	315.4	297.8
Std Dev	0.8	1.3	1.7	1.3	0.04	0.04	0.6	0.0	6.5	8.9	2.7	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS												
8												
9									NO TRACKING DATA			
14	86.5	83.1	88.2	73.6	-0.32	0.02	6.7	7.5	NO TRACKING DATA			
15	88.2	85.3	91.5	77.4	0.45	-0.17	6.2	7.0	441.8	445.0	351.8	354.3
									469.3	440.5	377.4	354.3
AVG.	87.4	84.2	89.9	75.5	0.06	-0.07	6.4	7.2	455.6	442.8	344.6	354.3
Std Dev	1.2	1.5	2.4	2.7	0.54	0.13	0.4	0.4	19.2	3.1	18.1	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS												
1												
2									NO TRACKING DATA			
3									NO TRACKING DATA			
4									NO TRACKING DATA			
52	85.6	82.8	85.9	73.0	-0.76	0.11	7.3	7.3	437.7	453.7	400.9	415.6
53	87.6	84.9	89.2	76.1	1.34	-0.34	6.7	7.0	465.4	433.7	465.1	415.6
54	86.9	83.7	86.9	73.8	0.90	-0.24	7.2	7.4	1083.2	1003.3	448.6	415.6
55	88.3	85.7	90.8	78.4	0.58	-0.17	6.8	6.6	853.1	805.4	440.2	415.6
AVG.	87.1	84.3	88.2	75.3	0.53	-0.16	7.0	7.1	714.9	674.0	438.7	415.6
Std Dev	1.4	1.6	2.7	3.0	1.07	0.23	0.3	0.4	272.6	248.6	33.4	0.0

TABLE NO. B.4-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

BOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SITE: 6

SIDELINE - 284 M. NORTH

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SR	CPA	SR	CPA
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
5														
6														
7														
12														
13	83.6	80.7	84.2	70.7	0.65	0.58	-0.25	-0.25	7.4	7.4	7.4	7.4	7.4	7.4
38	83.9	81.0	82.4	69.3	-0.41	-0.41	0.03	0.03	7.6	8.0	645.8	650.8	532.9	537.1
39	84.6	82.1	84.1	71.5	0.33	0.41	-0.21	-0.21	7.8	7.8	580.2	345.2	571.6	537.1
Avg.	84.0	81.3	83.6	70.5	0.21	0.19	-0.14	-0.14	7.6	7.8	643.3	615.8	551.7	537.1
Std Dev	0.8	1.0	1.5	1.6	0.78	0.75	0.21	0.21	0.2	0.4	87.6	86.4	35.9	0.0
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
34	82.8	80.2	82.4	69.8	0.02	-0.12	-0.06	-0.06	7.1	7.4	697.4	684.8	683.7	671.3
35	82.9	80.5	81.3	69.2	-0.17	-0.17	-0.07	-0.07	8.0	7.9	722.9	709.0	684.5	671.3
36	82.6	79.7	80.4	68.7	0.13	0.09	-0.11	-0.12	7.2	7.5	726.0	700.2	696.1	671.3
37	82.7	80.0	81.6	69.3	0.37	0.19	-0.15	-0.15	7.5	7.4	852.9	813.6	703.7	671.3
Avg.	82.7	80.1	81.4	69.3	0.06	-0.00	-0.10	-0.10	7.5	7.5	749.8	726.9	692.0	671.3
Std Dev	0.1	0.4	1.0	0.6	0.23	0.21	0.05	0.05	0.5	0.3	85.6	71.9	11.8	0.0
2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS														
30														
31	81.3	78.1	80.8	67.7	1.09	0.60	-0.23	-0.23	7.1	7.1	1041.1	966.3	874.8	812.0
32	81.7	78.8	79.4	68.0	0.51	-0.15	-0.06	-0.05	7.6	7.1	839.3	825.5	825.6	812.0
33	83.4	80.1	82.7	70.9	2.19	1.26	-0.40	-0.38	7.5	7.3	1747.2	1548.2	916.3	812.0
Avg.	82.2	79.0	81.0	68.5	1.26	0.57	-0.23	-0.22	7.4	7.2	1209.2	1113.3	872.2	812.0
Std Dev	1.5	1.4	2.4	1.8	1.21	1.00	0.24	0.23	0.4	0.2	369.9	287.8	64.2	0.0

NO TRACKING DATA
NO TRACKING DATA
NO TRACKING DATA
NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.5-2.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	(ACTUAL)	(REFERENCE)
JUNE 25, 1980														
SITE: 6 SIDELINE - 284 M. NORTH														
300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
56	91.6	87.3	93.7	80.1	-0.45	0.17	0.16	6.6	6.2	350.1	371.3	280.8	297.8	297.8
57	94.5	90.7	93.8	83.1	-0.45	0.10	0.10	7.4	6.9	416.4	430.1	288.3	297.8	297.8
58	92.7	88.9	95.4	82.3	-0.70	0.17	0.16	6.9	6.2	352.5	373.3	281.1	297.8	297.8
59	97.3	93.8	98.6	86.1	0.15	0.16	-0.07	6.9	6.9	430.7	421.4	304.4	297.8	297.8
Avg.	94.0	90.2	95.9	82.9	-0.41	0.38	0.09	6.9	6.6	387.4	399.0	288.6	297.8	297.8
Std Dv	3.0	3.4	2.5	3.0	0.48	0.14	0.13	0.4	0.5	51.6	38.1	13.5	0.0	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS														
60	91.3	83.0	91.6	78.9	-1.61	0.45	0.43	7.5	7.2	458.3	525.5	308.9	354.3	354.3
61	93.2	89.0	92.7	79.2	-1.16	0.29	0.30	7.0	7.0	417.9	460.4	321.6	354.3	354.3
62	95.5	92.8	96.1	83.2	0.04	0.05	-0.04	7.1	7.3	434.8	430.0	358.2	354.3	354.3
Avg.	93.3	89.9	93.5	80.4	-0.91	0.87	0.23	7.2	7.2	437.0	472.0	329.6	354.3	354.3
Std Dv	3.0	3.6	3.3	3.4	1.21	1.17	0.34	0.6	0.2	28.7	69.0	36.2	0.0	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS														
64	94.1	90.9	93.5	81.7	-0.50	0.14	0.13	8.1	7.5	577.9	600.8	399.7	415.6	415.6
65	92.8	89.8	92.4	80.1	-0.59	0.17	0.15	8.0	7.2	570.6	598.6	396.2	415.6	415.6
66	91.7	88.7	91.1	78.7	-0.92	-0.01	-0.01	7.5	7.2	417.4	416.6	416.4	415.6	415.6
Avg.	92.9	89.8	92.3	80.2	-0.37	0.34	0.09	7.9	7.2	522.0	538.6	404.1	415.6	415.6
Std Dv	1.7	1.6	1.7	2.2	0.43	0.39	0.12	0.5	0.3	128.2	149.5	15.3	0.0	0.0

TABLE NO. B.5-3.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DGT/TSC
12/23/81

CORRECTION DATA

SITE: 6					SIDELINE - 284 M. NORTH					JUNE 25, 1980					
CORRECTED					CORRECTIONS (dB)					CONSTANTS		TRACKING DATA (METERS) (ACTUAL) (REFERENCE)			
EV	EPNL	NEL	PMLTH	GBAN	$\Delta 1(P) / \Delta 1(A)$	$\Delta 2(P) / \Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CFAR			
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS															
68	90.8	88.1	90.0	78.4	-0.65	-0.61	0.15	0.14	7.0	6.6	730.1	767.3	511.0	537.1	
69	87.3	86.1	87.8	76.0	-0.14	-0.13	0.02	0.02	7.0	7.3	533.2	537.1	533.2	537.1	
70	91.7	89.8	91.9	78.6	-0.28	-0.24	0.04	0.05	6.7	7.2	1220.6	1238.5	529.3	537.1	
71	90.4	87.0	87.9	76.0	0.05	0.06	-0.03	-0.03	7.9	7.5	551.6	546.5	542.1	537.1	
Avg.	90.6	87.5	89.4	77.2	-0.25	-0.23	0.04	0.04	7.1	7.2	758.9	772.4	528.9	537.1	
Std Dev	1.2	1.5	2.4	1.8	0.36	0.35	0.09	0.09	0.6	0.4	217.6	230.6	16.0	0.0	
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS															
72	-	85.5	86.5	75.2	0.09	0.09	-	-0.04	-	7.2	579.6	671.5	679.3	671.3	
73	90.0	87.4	90.2	77.0	-0.28	-0.25	0.05	0.05	6.9	7.2	1090.7	1108.3	660.6	671.3	
75	88.5	85.6	86.6	73.9	0.12	0.12	-0.04	-0.04	7.1	7.2	1011.9	997.7	680.9	671.3	
Avg.	89.2	86.2	87.8	75.4	-0.02	-0.01	0.00	-0.01	7.0	7.2	927.4	925.9	673.6	671.3	
Std Dev	1.1	1.5	3.0	2.2	0.32	0.29	0.06	0.07	0.1	0.0	247.8	254.3	15.9	0.0	
2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS															
76	88.4	86.1	87.1	76.4	-0.13	-0.11	0.02	0.01	7.1	6.2	807.6	814.0	807.7	812.0	
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Avg.	88.4	86.1	87.1	76.4	-0.13	-0.11	0.02	0.01	7.1	6.2	809.6	814.0	807.7	812.0	
Std Dev	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.6-2.1

BELL 206L HELICOPTER

DOT/TSC
12/24/81

CORRECTION DATA

JUNE 26, 1980

CENTERLINE - CENTER

SITE: 1

TRACKING DATA (METERS)													
CORRECTED					CORRECTIONS (dB)			CONSTANTS		(ACTUAL)			
EV	EPML	MEL	PMLTH	DBAM	$\wedge 1(P) / \wedge 1(A)$	$\wedge 2(P) / \wedge 2(A)$	$\wedge 3(A)$	K(P)	K(A)	SR	CPA	SRP	CPAR
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS													
1	89.1	85.7	92.5	78.7	-2.42	-2.51	0.63	5.9	6.1	78.5	100.4	70.6	90.2
2	88.0	84.4	92.1	78.2	-1.75	-1.67	0.44	5.9	6.2	61.1	96.6	75.8	90.2
3	88.6	85.2	92.6	78.5	-2.46	-2.37	0.61	5.8	6.3	103.1	131.3	70.8	90.2
4	88.1	84.7	92.6	78.7	-2.89	-2.76	0.67	5.4	5.8	104.2	138.5	67.9	90.2
Avg.	88.5	85.0	92.5	78.5	-2.38	-2.28	0.59	5.8	6.1	91.7	116.7	71.3	90.2
Std Dev	0.6	0.7	0.3	0.3	0.58	0.55	0.12	0.3	0.3	16.9	26.0	4.0	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS													
5	84.5	81.6	84.5	71.3	-2.76	-2.55	0.75	7.2	7.3	206.9	263.3	166.7	212.1
6	82.6	79.6	82.6	70.2	-1.37	-1.27	0.35	7.6	7.1	237.1	263.6	192.8	212.1
7	84.3	81.1	83.9	71.0	-1.93	-1.77	0.52	7.2	7.0	187.2	221.2	179.5	212.1
8	83.1	80.0	83.1	70.4	-1.73	-1.58	0.44	7.6	7.2	303.8	367.5	185.5	212.1
Avg.	83.6	80.6	83.5	70.7	-1.95	-1.79	0.51	7.4	7.2	233.7	273.9	180.6	212.1
Std Dev	1.2	1.1	1.1	0.6	0.72	0.67	0.21	0.3	0.2	62.5	64.8	12.7	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS													
9	82.1	79.3	80.6	68.1	-1.53	-1.39	0.39	7.5	7.5	277.2	312.8	269.0	303.6
10	81.2	78.6	81.2	68.5	-1.89	-1.67	0.43	7.2	7.2	482.1	552.8	264.8	303.6
11	82.4	79.9	81.1	68.1	-1.09	-0.97	0.26	7.6	7.8	302.2	326.7	280.7	303.6
12	80.4	77.6	79.6	66.9	-1.14	-1.03	0.28	7.5	7.3	280.5	305.4	278.7	303.6
Avg.	81.6	78.8	80.6	67.9	-1.41	-1.26	0.34	7.4	7.4	335.5	374.4	273.3	303.6
Std Dev	1.1	1.2	0.8	0.8	0.46	0.40	0.10	0.2	0.3	126.5	146.0	9.4	0.0

TABLE NO. B.6-3.1
BELL 206L HELICOPTER

DOT/TSC
12/24/81

CORRECTION DATA

JUNE 26, 1980

SITE: 1 CENTERLINE - CENTER

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	GBAM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SKR	CPAR
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
13	79.1	76.7	76.5	63.9	-1.64	-1.43	0.38	0.36	7.5	7.1	443.8	498.7	405.8	456.0
14	77.4	74.7	76.1	63.3	-1.42	-1.25	0.28	0.28	7.1	7.1	489.0	535.3	416.6	456.0
15	76.7	76.1	75.6	63.0	-1.48	-1.31	0.31	0.33	7.2	7.4	454.2	502.1	412.5	456.0
16	77.6	74.9	75.3	62.7	-1.22	-1.05	0.24	0.24	7.5	7.5	479.4	516.5	423.2	456.0
AVG.	78.2	75.6	75.9	63.2	-1.44	-1.26	0.30	0.30	7.3	7.3	466.6	513.1	414.5	456.0
Std Dv	1.6	1.2	0.7	0.6	0.21	0.19	0.07	0.07	0.3	0.3	25.9	29.4	9.0	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
17	75.2	72.9	72.1	59.7	-0.61	-0.51	0.08	0.08	7.8	7.7	593.5	608.5	593.4	608.4
18	76.1	73.8	72.9	60.3	-0.67	-0.54	0.08	0.08	7.3	7.4	709.8	728.2	593.0	608.4
AVG.	75.7	73.3	72.5	60.0	-0.64	-0.52	0.08	0.08	7.6	7.6	651.6	668.3	593.2	608.4
Std Dv	0.6	0.6	0.6	0.4	0.04	0.02	0.00	0.00	0.3	0.2	82.2	84.6	0.3	0.0

NO TRACKING DATA

TABLE NO. B.7-1.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 1				CENTERLINE - CENTER				JUNE 26, 1980						
CORRECTED				CORRECTIONS (dB)				TRACKING DATA (METERS) (ACTUAL) (REFERENCE)						
EU	EPNL	NEL	FNLTN	GRAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	CONSTANTS		SR	CPA	SRR	CPAR
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS														
22	98.8	94.6	102.5	88.4	0.71	0.71	-0.23	-0.22	6.4	6.3	134.3	123.8	128.2	118.2
24	97.7	93.1	101.5	86.7	0.32	0.32	-0.10	-0.11	6.1	6.4	130.5	125.6	122.9	118.2
26	97.7	93.3	100.4	86.2	-0.31	-0.27	0.08	0.08	6.9	6.7	121.6	124.9	115.1	118.2
28	97.7	93.4	101.7	87.3	0.35	0.36	-0.11	-0.11	6.2	6.1	131.5	126.0	123.4	118.2
AVG.	98.0	93.6	101.5	87.2	0.27	0.28	-0.09	-0.09	6.4	6.4	129.5	125.1	122.4	118.2
Std Bv	0.7	0.8	1.0	1.2	0.52	0.50	0.16	0.15	0.4	0.3	6.7	1.2	6.7	0.0
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS														
30	97.3	93.1	100.5	86.6	0.00	0.02	-0.01	-0.01	6.3	6.0	148.7	147.9	118.9	118.2
32	99.3	94.6	101.2	86.3	0.33	0.33	-0.12	-0.12	7.1	7.2	151.7	145.8	123.0	118.2
34	96.4	92.6	98.3	84.6	0.52	0.51	-0.17	-0.17	6.8	6.7	170.2	160.4	125.4	118.2
36									NO TRACKING DATA					
AVG.	97.7	93.4	100.0	85.8	0.28	0.29	-0.10	-0.10	6.7	6.6	156.8	151.4	122.4	118.2
Std Bv	2.0	1.5	2.1	1.5	0.37	0.35	0.12	0.12	0.5	0.9	16.5	11.2	4.7	0.0
APPROACH - BEST RATE OF CLIMB														
38	97.8	93.6	99.9	86.2	0.17	0.18	-0.07	-0.06	6.9	6.4	151.9	148.6	120.9	118.2
40	97.3	92.9	100.7	86.2	0.36	0.36	-0.12	-0.12	6.6	6.5	135.9	130.3	123.3	118.2
42	97.9	93.7	101.6	86.9	0.33	0.34	-0.10	-0.10	6.1	5.9	139.9	134.5	123.0	118.2
AVG.	97.7	93.4	100.8	86.5	0.29	0.29	-0.10	-0.09	6.5	6.3	142.6	137.8	122.4	118.2
Std Bv	0.4	0.6	1.2	0.6	0.14	0.14	0.04	0.04	0.5	0.4	11.8	13.6	1.9	0.0

TABLE NO. B.7-2.1

SINDSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 1				CENTERLINE - CENTER				JUNE 26, 1980							
CORRECTED				CORRECTIONS (dB)				TRACKING DATA (METERS) (ACTUAL)							
EV	EPRL	NEL	PLTH	dBAM	$\Delta(1P)$	$\Delta(1A)$	$\Delta(2P)$	$\Delta(2A)$	CONSTANTS	K(P)	K(A)	SR	CPA	SKR	CPAR
TAKEOFF - HOVER POWER PLUS 10%															
21	89.4	84.1	90.6	75.1	-1.69	-1.68	0.47	0.49	6.9	7.2	7.0	120.6	141.0	118.5	138.6
23	89.2	83.9	90.2	75.4	-2.16	-2.14	0.63	0.62	7.0	7.0	7.0	112.9	138.8	112.8	138.6
25	89.1	84.0	89.9	75.7	-2.02	-1.82	0.53	0.53	7.1	7.0	7.1	118.9	141.6	116.4	138.6
27	88.9	84.1	89.9	75.8	-2.23	-1.95	0.59	0.59	7.0	7.0	7.0	114.7	139.2	114.2	138.6
29	88.8	83.6	90.2	75.7	-1.60	-1.44	0.40	0.40	6.7	6.8	6.8	123.5	141.4	121.9	138.6
31	91.3	86.2	92.2	77.4	-0.72	-0.64	0.17	0.17	7.2	7.1	7.1	132.6	139.9	131.3	138.6
33	90.5	85.6	91.1	76.7	-1.53	-1.22	0.36	0.35	7.4	7.1	7.1	125.4	140.5	123.7	138.6
Avg.	89.6	84.5	90.6	76.0	-1.67	-1.56	0.45	0.45	7.1	7.0	7.0	121.2	140.4	119.7	138.6
Std Dev	1.0	1.1	0.9	0.9	0.58	0.56	0.17	0.17	0.2	0.1	0.1	7.3	1.2	7.0	0.0
TAKEOFF - MAXIMUM POWER															
35	91.8	87.0	93.4	79.4	1.33	1.25	-0.41	-0.39	7.1	6.7	6.7	180.6	158.1	158.3	138.6
37												NO TRACKING DATA			
39	91.6	86.6	92.6	78.1	0.52	0.51	-0.19	-0.18	7.4	7.1	7.1	148.0	139.7	146.9	138.6
41	91.7	86.8	92.6	78.0	2.03	1.88	-0.54	-0.64	7.7	7.6	7.6	187.3	154.4	168.1	138.6
Avg.	91.7	86.8	92.8	78.5	1.29	1.21	-0.41	-0.40	7.4	7.2	7.2	172.0	150.8	157.8	138.6
Std Dev	0.1	0.3	0.7	1.2	1.07	0.97	0.32	0.33	0.4	0.6	0.6	29.7	13.6	15.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%															
43												NO TRACKING DATA			
44	95.1	90.9	98.0	84.3	0.02	0.02	-0.03	-0.02	6.9	6.6	6.6	197.9	196.2	152.5	151.2
45	96.0	91.7	98.2	84.8	0.99	0.95	-0.33	-0.31	7.4	6.9	6.9	227.6	205.4	167.6	151.2
46	94.2	90.1	97.6	83.4	-0.54	-0.51	0.12	0.13	6.3	6.5	6.5	202.5	211.7	144.6	151.2
47	96.3	92.4	98.6	84.8	-0.09	-0.07	0.01	0.01	7.3	7.3	7.3	223.7	224.1	150.9	151.2
Avg.	95.4	91.3	98.1	84.3	0.69	0.10	-0.06	-0.05	7.0	6.8	6.8	212.9	209.4	153.9	151.2
Std Dev	1.2	1.3	0.5	0.8	0.79	0.75	0.24	0.23	0.6	0.5	0.5	18.3	14.4	11.9	0.0

TABLE NO. B.6-2.1H
BELL 206A HELICOPTER

NOI/TSC
12/26/81

CORRECTION DATA

SITE: 1H		CENTERLINE - CENTER (10-METER)				JUNE 26, 1980						
		CORRECTED		CORRECTIONS (dB)		CONSTANTS		TRACKING DATA (METERS)				
								(ACTUAL)				
EV	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SKR	CPAR	
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS												
1	90.1	86.2	94.6	80.1	-2.81	-2.64	0.67	0.72	5.6	6.0	61.9	81.4
2	89.4	85.3	94.1	79.7	-2.16	-1.96	0.49	0.48	5.8	5.7	92.4	81.4
3	90.0	85.9	94.8	80.1	-2.99	-2.75	0.69	0.71	5.9	6.1	96.5	81.4
4	89.5	85.5	94.7	80.0	-3.51	-3.21	0.73	0.78	5.3	5.6	97.7	81.4
AVG.	89.7	85.7	94.6	80.0	-2.87	-2.64	0.64	0.67	5.6	5.8	87.1	81.4
Std Dev	0.4	0.5	0.3	0.2	0.68	0.63	0.13	0.16	0.3	0.3	20.8	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS												
5	84.9	82.0	86.0	72.6	-3.21	-2.81	0.77	0.78	7.1	7.1	199.1	203.3
6	81.8	78.7	83.6	70.7	-1.69	-1.43	0.33	0.33	7.0	6.8	209.2	203.3
7	83.0	79.8	84.1	70.9	-2.38	-2.08	0.55	0.52	7.2	6.8	189.3	203.3
8	81.9	78.8	83.7	70.5	-2.09	-1.78	0.42	0.42	6.9	6.8	218.1	203.3
AVG.	82.9	79.8	84.4	71.2	-2.34	-2.02	0.52	0.51	7.0	6.9	203.9	203.3
Std Dev	1.8	1.9	1.4	1.2	0.79	0.72	0.23	0.24	0.1	0.2	15.3	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS												
9	82.3	79.4	81.3	68.3	-1.76	-1.55	0.42	0.41	7.7	7.6	290.1	294.7
10	81.6	79.2	80.7	68.1	-2.19	-1.79	0.45	0.45	7.4	7.4	308.4	294.7
11	-	78.6	80.2	67.1	-1.13	-1.02	-	0.27	-	7.8	304.5	294.7
12	79.8	76.8	79.4	66.8	-1.21	-1.10	0.27	0.26	7.2	6.9	301.1	294.7
AVG.	81.2	78.5	80.4	67.6	-1.57	-1.36	0.38	0.35	7.4	7.4	289.0	294.7
Std Dev	1.5	1.5	1.0	0.9	0.41	0.45	0.14	0.12	0.4	0.5	26.4	0.0

TABLE NO. B.6-3.1H
BELL 206L HELICOPTER
CORRECTION DATA

DOT/TSC
12/26/81

SITE: 1H		CENTERLINE - CENTER (10-METER)				JUNE 26, 1980			
CORRECTED		CORRECTIONS (dB)				CONSTANTS			
EV	EPNL NEL	PNLTH	dBDM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS									
13	78.4	75.6	76.2	62.1	-1.79	-1.55	0.40	7.6	7.6
14	76.4	73.7	74.7	62.2	-1.43	-1.24	0.28	7.3	7.1
15	77.6	74.9	75.0	62.0	-1.58	-1.35	0.33	7.5	7.7
16	76.9	74.1	75.0	62.1	-1.25	-1.08	0.24	7.3	7.3
Avg.	77.3	74.6	75.2	62.4	-1.51	-1.30	0.31	7.4	7.4
Std Dev	1.0	1.1	0.8	0.7	0.28	0.24	0.09	0.2	0.4
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS									
17	75.2	72.4	71.7	59.0	-0.75	-0.56	0.09	7.8	7.7
18	75.9	73.0	72.3	59.6	-0.76	-0.57	0.08	7.5	7.4
Avg.	75.5	72.7	72.0	59.3	-0.75	-0.56	0.08	7.7	7.6
Std Dev	0.5	0.4	0.5	0.4	0.01	0.01	0.00	0.2	0.2
NO TRACKING DATA									
								828.8	850.0
								778.7	799.2
								803.7	824.6
								35.4	35.9
								0.3	0.3
								405.8	405.8
								54.4	54.4
								9.6	9.6
								0.0	0.0

TRACKING DATA (METERS)
(ACTUAL)

SR CPA SRR CPAR

544.3 613.2 394.9 447.1
481.1 527.3 408.0 447.1
534.5 591.9 403.8 447.1
488.4 526.8 414.5 447.1

512.1 564.8 405.8 447.1
39.1 54.4 9.6 0.0

828.8 850.0 594.6 599.5
778.7 799.2 584.2 599.5

803.7 824.6 584.4 599.5
35.4 35.9 0.3 0.0

TABLE NO. B.7-1.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DGT/TSC
12/28/81

CORRECTION DATA

SITE: 1H				CENTERLINE - CENTER (10-METER)						JUNE 26, 1980				
CORRECTED				CORRECTIONS (dB)						TRACKING DATA (METERS) (ACTUAL)				
EV	EPNL	NEL	PNL1H	dBAN	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS														
22	99.1	94.6	103.3	98.7	0.78	0.76	-0.23	-0.23	6.1	6.1	135.0	123.7	119.6	109.5
24	98.1	93.4	102.5	87.7	0.34	0.34	-0.11	-0.10	5.9	5.7	131.2	125.8	114.2	109.5
26	98.8	93.8	102.4	86.5	-0.35	-0.32	0.08	0.09	6.6	7.0	122.1	125.8	106.4	109.5
28	98.6	93.9	102.4	87.8	0.38	0.38	-0.13	-0.13	6.5	6.4	116.6	111.4	114.6	109.5
AVG.	98.7	94.0	102.7	87.7	0.29	0.29	-0.10	-0.09	6.3	6.3	126.2	121.7	113.7	109.5
Std Dv	0.6	0.6	0.5	1.1	0.57	0.55	0.16	0.16	0.4	0.6	10.3	8.5	6.7	0.0
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS														
30	98.3	93.9	101.5	87.4	-0.01	0.01	-0.01	-0.01	6.5	5.9	128.3	127.6	110.1	109.5
32	98.3	93.6	101.5	86.5	0.36	0.36	-0.12	-0.12	6.3	6.4	119.9	114.9	114.2	109.5
34	96.0	91.7	98.0	84.3	0.56	0.55	-0.19	-0.19	6.9	6.8	138.0	129.6	116.6	109.5
36	96.7	92.2	96.8	84.9	0.47	0.47	-0.16	-0.15	7.0	6.5	148.0	140.1	115.6	109.5
AVG.	97.3	92.9	100.0	85.8	0.34	0.35	-0.12	-0.12	6.7	6.4	133.5	128.1	114.1	109.5
Std Dv	1.4	1.3	2.2	1.8	0.31	0.29	0.10	0.09	0.4	0.5	14.9	12.7	3.5	0.0
APPROACH - BEST RATE OF CLIMB														
38	97.4	93.0	99.0	84.9	0.18	0.18	-0.07	-0.07	7.2	6.9	112.5	109.9	112.1	109.5
40	97.2	92.6	101.2	86.8	0.39	0.38	-0.12	-0.11	6.1	5.9	119.3	114.1	114.5	109.5
42	97.6	93.1	102.1	87.8	0.37	0.36	-0.10	-0.10	5.6	5.4	122.5	117.5	114.2	109.5
AVG.	97.4	92.9	100.8	86.5	0.31	0.31	-0.10	-0.09	6.3	6.0	118.1	113.8	113.6	109.5
Std Dv	0.3	0.4	2.5	2.1	0.16	0.16	0.04	0.03	1.1	1.1	7.3	5.4	1.9	0.0

TABLE NO. B.7-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 1H				CENTERLINE - CENTER (10-METER)					JUNE 26, 1980					
CORRECTED				CORRECTIONS (dB)					CONSTANTS		TRACKING DATA (METERS) (ACTUAL)			
EV	EPNL	NEL	PHLTM	QBAM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
TAKEOFF - HOWER POWER PLUS 10Z														
21	91.6	86.1	92.4	76.8	-2.05	-1.92	0.54	0.55	7.4	7.5	112.2	132.8	109.9	130.0
23	92.3	86.8	92.9	77.7	-2.53	-2.44	0.63	0.61	6.5	6.3	107.5	134.2	104.2	130.0
25	92.2	86.5	95.3	79.0	-2.18	-2.09	0.50	0.54	6.1	6.6	110.7	133.6	107.7	130.0
27	92.5	86.9	95.4	79.3	-2.38	-2.29	0.55	0.59	6.1	6.6	106.3	130.9	105.6	130.0
29	91.9	86.2	95.5	79.2	-1.73	-1.66	0.38	0.41	5.9	6.5	115.0	133.2	112.3	130.0
31	91.5	85.9	94.7	78.2	-0.75	-0.69	0.15	0.17	6.2	6.8	124.3	131.7	122.8	130.0
33	90.8	85.2	93.2	77.3	-1.43	-1.33	0.33	0.34	6.3	6.5	116.2	131.2	115.1	130.0
Avg.	91.8	86.2	94.2	78.2	-1.86	-1.77	0.44	0.46	6.4	6.7	113.2	132.5	111.1	130.0
Std Dv	0.6	0.6	1.5	1.1	0.68	0.67	0.18	0.18	0.5	0.4	6.7	1.4	7.0	0.0
TAKEOFF - MAXIMUM POWER														
35	92.5	86.9	94.9	79.3	1.44	1.37	-0.43	-0.43	6.9	6.9	149.9	130.0	150.0	150.0
37											NO TRACKING DATA			
39	91.9	86.1	94.3	77.9	0.59	0.58	-0.19	-0.20	6.8	7.2	139.9	131.3	138.6	130.0
41	92.6	87.1	94.2	78.5	2.17	2.05	-0.57	-0.58	6.4	6.5	160.0	130.2	159.8	130.0
Avg.	92.3	86.7	94.5	78.5	1.40	1.33	-0.40	-0.40	6.7	6.9	150.0	130.5	149.5	130.0
Std Dv	0.5	0.7	0.5	1.0	1.12	1.04	0.27	0.27	0.4	0.5	14.2	1.0	15.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90Z														
43											NO TRACKING DATA			
44	94.4	89.8	97.9	83.6	0.01	0.03	-0.03	-0.03	6.4	6.4	147.3	145.9	143.6	142.3
45	95.0	90.3	98.8	84.5	1.08	1.02	-0.29	-0.30	6.2	6.4	171.9	154.1	158.8	142.3
46	93.6	88.9	97.5	83.0	-0.60	-0.53	0.13	0.13	6.1	6.3	135.8	142.3	135.8	142.3
47	95.4	91.4	98.6	84.6	-0.11	-0.07	0.01	0.01	6.7	6.7	145.8	146.1	142.1	142.3
Avg.	94.6	90.1	98.2	83.9	0.09	0.11	-0.04	-0.05	6.4	6.4	150.2	147.1	145.1	142.3
Std Dv	1.0	1.3	0.7	0.9	0.87	0.80	0.22	0.22	0.3	0.2	18.8	6.1	11.9	0.0

TABLE NO. B-6-3.1G

BELL 206L HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 16				CENTERLINE - CENTER (FLUSH)				JUNE 26, 1980							
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)					
EV	EPWL	NEL	PWLTA	GEAR	$\Delta 1(P) / \Delta 1(A)$	$\Delta 2(P) / \Delta 2(A)$	K(P)	K(A)	SR	DPA	SRK	CPAR			
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS															
13	83.0	80.3	81.3	58.0	-1.60	-1.43	0.37	0.38	7.4	7.6	474.3	532.8	407.0	457.2	
14	81.6	79.1	80.2	67.3	-1.33	-1.20	0.28	0.28	7.2	7.2	475.3	520.2	417.8	457.2	
15	82.6	79.9	80.4	67.4	-1.41	-1.25	0.32	0.33	7.4	7.6	469.8	519.1	413.7	457.2	
16	82.5	80.4	81.1	68.6	-1.79	-1.43	0.24	0.24	7.4	7.6	706.2	760.7	424.4	457.2	
Avg.	82.4	79.9	80.7	67.8	-1.53	-1.33	0.30	0.31	7.3	7.5	531.4	583.2	415.7	457.2	
Std Dev	0.7	0.8	0.6	0.7	0.25	0.15	0.07	0.07	0.1	0.2	142.7	145.1	9.0	0.0	
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS															
17									NO TRACKING DATA						
18	79.4	77.1	77.2	64.3	-0.62	-0.51	0.08	0.08	7.6	7.6	698.0	715.6	594.6	609.6	
19	-	77.7	77.8	64.3	-0.63	-0.52	-	0.08	-	7.6	679.2	696.8	594.2	609.6	
Avg.	79.4	77.4	77.5	64.5	-0.62	-0.51	0.08	0.08	7.6	7.6	688.6	706.2	594.4	609.6	
Std Dev	-	0.4	0.4	0.4	0.01	0.01	-	0.00	-	0.0	13.2	13.2	0.3	0.0	

TRACKING DATA (METERS)
(ACTUAL) (REFERENCE)

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

COLLECTION DATA

JUNE 26, 1980

CENTERLINE - CENTER (FLUSH)

SITE: 16

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)			
EV	EPNL	MEL	PWLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS														
22	102.5	98.6	106.0	72.6	0.70	0.70	-0.23	-0.22	6.5	6.2	145.0	133.7	129.4	119.4
24	101.4	97.4	105.4	91.5	0.51	0.32	-0.10	-0.10	6.0	6.0	141.1	135.8	124.1	119.4
26	102.1	97.9	105.0	91.2	-0.30	-0.26	0.58	0.07	6.7	6.7	123.0	126.3	116.3	119.4
28	102.0	97.9	105.1	91.6	0.35	0.36	-0.12	-0.12	6.6	6.3	126.8	121.6	124.5	119.4
Avg.	102.0	98.0	105.4	91.7	0.26	0.28	-0.09	-0.09	6.5	6.2	134.0	125.3	123.6	119.4
Std Dv	0.5	0.6	0.6	0.7	0.51	0.49	0.16	0.15	0.4	0.2	13.1	8.1	6.7	0.0
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS														
30	100.9	97.4	103.6	91.0	0.00	0.02	-0.01	-0.01	6.5	5.8	149.7	148.9	120.1	119.4
32	101.4	97.4	103.8	89.0	0.33	0.33	-0.11	-0.12	6.8	7.2	143.2	137.8	124.2	119.4
34	99.5	95.8	100.9	88.2	0.51	0.51	-0.18	-0.16	7.0	6.5	158.8	149.8	126.6	119.4
36	99.9	96.1	102.2	88.9	0.44	0.44	-0.15	-0.14	6.8	6.4	156.8	149.0	125.6	119.4
Avg.	100.5	96.6	102.6	89.3	0.32	0.32	-0.11	-0.11	6.8	6.5	152.1	146.4	124.1	119.4
Std Dv	1.1	1.0	1.7	1.5	0.28	0.27	0.09	0.08	0.3	0.7	8.7	7.0	3.5	0.0
APPROACH - BEST RATE OF CLIMB														
38	100.8	97.0	102.8	88.9	0.17	0.18	-0.07	-0.07	6.8	7.0	124.3	121.6	122.1	119.4
40	100.2	96.3	103.3	89.4	0.36	0.36	-0.12	-0.12	6.8	6.6	146.9	140.8	124.5	119.4
42	101.2	97.3	104.0	90.3	0.34	0.34	-0.10	-0.10	6.1	6.1	141.2	135.8	124.2	119.4
Avg.	100.7	96.8	103.4	89.6	0.29	0.29	-0.10	-0.10	6.6	6.5	137.5	132.8	123.6	119.4
Std Dv	0.7	0.7	0.9	1.0	0.15	0.14	0.04	0.04	0.6	0.7	16.6	14.1	1.9	0.0

TABLE NO. B.7-2.15

SINKORSNY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 16				CENTERLINE - CENTER (FLUSH)				JUNE 26, 1980						
CORRECTED				CORRECTIONS (dB)				TRACKING DATA (METERS)						
EV	EPNL	NEL	PNLTH	GRAM	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	CONSTANTS	SR	CRA	SR	CPAR				
TAKEOFF - HOVER POWER PLUS 10%														
21	90.9	86.0	91.3	77.1	-1.71	-1.48	0.50	0.49	7.4	7.2	134.1	156.6	119.7	139.8
23	93.3	88.4	94.1	79.8	-2.30	-2.06	0.65	0.53	7.4	7.1	130.4	159.9	114.0	139.8
25	93.8	88.4	95.1	80.1	-1.88	-1.72	0.51	0.52	6.8	6.9	120.1	142.8	117.6	139.8
27	94.5	89.2	96.1	80.9	-1.96	-1.90	0.57	0.57	6.9	6.9	119.7	145.0	115.4	139.8
29	93.9	88.4	95.9	80.4	-1.40	-1.36	0.39	0.40	6.7	6.8	129.6	148.3	122.2	139.8
31	94.7	89.3	96.1	80.4	-0.60	-0.58	0.16	0.17	6.9	7.2	137.8	145.4	132.5	139.8
33	94.1	88.9	95.2	80.1	-1.22	-1.13	0.54	0.34	7.1	7.1	129.1	144.4	124.9	139.8
Avg.	93.6	88.4	94.8	79.8	-1.58	-1.46	0.45	0.45	7.0	7.0	128.7	148.9	120.9	139.8
Std Dev	1.4	1.2	1.9	1.4	0.62	0.55	0.18	0.17	0.3	0.2	7.4	7.3	7.0	0.0
TAKEOFF - MAXIMUM POWER														
35	94.9	89.9	95.8	82.5	1.27	1.22	-0.44	-0.38	7.6	6.6	167.1	148.2	159.5	139.8
37									NO TRACKING DATA					
39	94.8	89.4	96.0	80.6	0.52	0.50	-0.18	-0.18	7.1	7.4	148.1	139.8	148.0	139.8
41	95.1	90.0	96.3	81.2	1.96	1.82	-0.63	-0.64	7.6	7.7	169.8	140.2	169.2	139.8
Avg.	94.8	89.8	96.0	81.5	1.25	1.18	-0.42	-0.40	7.5	7.2	162.3	142.8	158.9	139.8
Std Dev	0.4	0.5	0.4	1.4	1.02	0.93	0.32	0.33	0.4	0.8	17.5	6.7	15.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%														
43	99.4	95.4	102.5	89.0	1.22	1.18	-0.40	-0.37	7.1	6.7	173.3	152.4	173.3	152.4
44	98.6	94.3	101.4	88.0	0.02	0.03	-0.03	-0.02	7.1	6.4	198.8	197.1	153.7	152.4
45	99.4	95.4	102.6	89.0	0.96	0.93	-0.31	-0.29	6.9	6.6	170.7	154.1	168.8	152.4
46	97.7	93.5	101.6	87.1	-0.58	-0.50	0.12	0.12	6.1	6.5	203.4	212.5	145.9	152.4
47	99.8	96.0	102.3	89.0	-0.08	-0.06	0.01	0.01	7.2	6.9	156.1	156.4	152.1	152.4
Avg.	99.0	94.9	102.1	88.4	0.31	0.32	-0.12	-0.11	6.9	6.6	180.4	174.5	158.7	152.4
Std Dev	1.0	1.1	0.7	1.0	0.87	0.82	0.26	0.24	0.5	0.2	23.1	32.6	13.5	0.0

TABLE NO. B.6-2.2

BELL 206L HELICOPTER

CORRECTION DATA

DOI/TSC
12/24/81

SITE: 2				CENTERLINE - 150 M. WEST				JUNE 26, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	NEL	PWLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
1	90.4	86.8	93.5	79.8	-2.45	-2.36	0.69	0.68	6.3	6.2	73.3	94.2	70.2	90.2
2	89.4	85.7	93.5	79.8	-1.83	-1.73	0.49	0.46	6.2	5.9	94.1	112.7	75.4	90.2
3	89.7	86.2	93.2	79.3	-2.64	-2.55	0.71	0.74	6.0	6.3	76.5	100.2	68.9	90.2
4	89.4	85.7	93.9	79.7	-2.57	-2.48	0.64	0.67	5.6	5.9	75.2	97.6	59.5	90.2
Avg.	89.7	86.1	93.5	79.6	-2.37	-2.28	0.63	0.64	6.0	6.1	79.8	101.2	71.0	90.2
Std Dv	0.6	0.6	0.3	0.3	0.45	0.46	0.12	0.15	0.4	0.3	11.8	9.9	3.6	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
5	85.4	82.2	85.6	72.3	-2.57	-2.39	0.71	0.71	7.1	7.2	178.8	224.9	168.6	212.1
6	83.8	80.7	85.2	72.3	-1.35	-1.22	0.33	0.32	6.8	6.5	190.7	213.2	189.8	212.1
7	85.1	82.0	85.3	71.8	-1.92	-1.75	0.51	0.50	7.1	7.0	195.2	230.2	179.8	212.1
8	83.8	80.7	84.0	71.5	-1.69	-1.53	0.42	0.40	7.2	6.9	264.6	302.9	185.3	212.1
Avg.	84.5	81.4	85.0	72.0	-1.88	-1.72	0.49	0.48	7.1	6.9	207.3	242.8	180.9	212.1
Std Dv	1.0	1.0	0.9	0.5	0.63	0.61	0.20	0.21	0.2	0.3	47.5	49.9	11.2	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
9	82.9	80.1	81.7	68.7	-1.57	-1.40	0.40	0.40	7.5	7.5	295.9	334.4	268.6	303.6
10	81.7	79.1	81.3	69.2	-1.74	-1.55	0.42	0.41	7.1	6.9	279.7	320.6	264.9	303.6
11	82.9	80.3	82.6	69.4	-1.32	-1.17	0.30	0.30	7.0	7.1	306.0	337.6	275.2	303.6
12	81.4	78.4	81.5	68.8	-1.17	-1.03	0.26	0.25	7.1	6.8	319.5	347.8	278.9	303.6
Avg.	82.2	79.5	81.8	69.0	-1.45	-1.29	0.34	0.34	7.2	7.1	300.3	335.1	271.9	303.6
Std Dv	0.9	1.1	0.7	0.4	0.31	0.28	0.09	0.10	0.3	0.4	20.5	13.8	7.7	0.0

TABLE NO. B-5-3.2

CELL 206L HELICOPTER

BOT/TSL
12/24/81

CORRECTION DATA

SITE: 2				CENTERLINE - 150 M. WEST				JUNE 26, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)				
EV	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
13	80.4	77.8	78.1	65.2	-1.71	-1.48	0.37	0.38	7.1	7.2	471.0	531.1	404.4	456.0
14	78.4	75.8	75.9	63.8	-1.27	-1.08	0.26	0.25	7.6	7.3	487.1	527.6	421.0	456.0
15	79.6	77.0	76.7	63.5	-1.59	-1.37	0.36	0.37	7.6	7.9	465.1	518.1	409.4	456.0
16	78.6	76.0	76.4	63.2	-1.29	-1.08	0.24	0.23	7.6	7.5	629.7	676.4	424.5	456.0
Avg.	79.2	76.6	76.8	64.1	-1.47	-1.25	0.31	0.31	7.5	7.5	513.2	563.3	414.8	456.0
Std Dev	1.1	1.2	1.1	0.9	0.27	0.25	0.08	0.10	0.3	0.3	95.8	92.6	11.6	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
17														
18	76.6	73.9	74.2	61.3	-0.65	-0.54	0.07	0.07	7.3	7.5	613.4	627.5	594.7	608.4
19	-	74.7	74.2	61.4	-0.65	-0.51	-	0.07	-	7.6	688.0	703.4	595.1	608.4
Avg.	76.6	74.3	74.2	61.3	-0.65	-0.52	0.07	0.07	7.3	7.5	650.7	665.4	594.9	608.4
Std Dev	-	0.5	0.0	0.1	0.00	0.02	-	0.00	-	0.1	52.8	53.7	0.3	0.0

NO TRACKING DATA

TABLE NO. E.7-1.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	NEL	PMLTM	DEARM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS														
22	99.4	94.5	102.4	87.6	0.82	0.81	-0.28	-0.28	7.0	6.8	116.1	105.8	112.6	102.6
24	99.2	94.6	102.6	87.7	0.45	0.46	-0.15	-0.15	6.6	6.9	120.7	114.4	108.2	102.6
26	99.7	94.9	103.7	89.3	-0.56	-0.51	0.15	0.14	6.3	5.9	100.3	105.9	97.1	102.6
28	100.3	95.4	104.8	89.1	0.55	0.55	-0.17	-0.18	6.3	6.6	113.6	106.6	109.3	102.6
Avg.	99.6	94.8	103.4	88.4	0.31	0.33	-0.11	-0.12	6.5	6.6	112.7	108.2	106.8	102.6
Std Dev	0.2	0.3	1.3	1.1	0.74	0.71	0.23	0.22	0.4	0.6	10.7	5.1	8.2	0.0
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS														
30	100.2	95.6	104.2	89.8	0.07	0.09	-0.03	-0.03	6.1	5.1	110.7	109.4	103.9	102.6
32	98.2	94.0	102.0	88.3	0.14	0.16	-0.05	-0.05	6.1	5.8	123.5	121.1	104.7	102.6
34	98.5	94.1	101.8	87.4	0.81	0.79	-0.25	-0.24	6.3	6.2	135.5	123.8	112.2	102.6
36	99.8	95.1	102.8	88.3	0.50	0.50	-0.17	-0.17	6.9	6.7	116.3	109.8	108.6	102.6
Avg.	99.2	94.7	102.7	88.5	0.38	0.38	-0.12	-0.12	6.3	6.2	121.5	116.0	107.4	102.6
Std Dev	1.2	1.0	1.4	1.2	0.42	0.40	0.13	0.12	0.5	0.5	13.1	9.2	4.7	0.0
APPROACH - BEST RATE OF CLIMB														
38	98.7	94.3	102.3	86.8	-0.14	-0.11	0.02	0.02	6.2	7.0	129.4	130.1	102.0	102.6
40	98.5	94.2	102.7	87.9	0.33	0.34	-0.11	-0.11	5.8	5.1	114.3	109.6	107.0	102.6
42	99.2	94.5	102.9	87.6	0.29	0.31	-0.11	-0.11	6.3	6.5	120.5	115.9	106.7	102.6
Avg.	98.8	94.3	102.6	87.4	0.15	0.18	-0.07	-0.07	6.1	6.5	121.4	118.5	105.2	102.6
Std Dev	0.5	0.2	0.4	0.8	0.37	0.36	0.11	0.11	0.4	0.7	10.7	14.9	4.0	0.0

TABLE NO. B.7-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 2				CENTERLINE - 150 M. WEST				JUNE 26, 1980						
EV	CORRECTED			dBAM	CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH		$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(F)$	$\wedge 2(A)$	K(P)	K(A)	SR	CFA	SRR	CPAR
TAKEDOFF - HOVER POWER PLUS 10%														
21	93.3	87.6	94.9	79.6	-1.49	-1.38	0.36	0.35	6.7	6.5	91.0	102.9	90.7	102.6
23	92.9	87.3	95.3	79.9	-2.21	-2.14	0.58	0.59	6.6	6.8	96.8	118.3	83.9	102.6
25	93.0	87.7	95.3	80.6	-1.97	-1.87	0.52	0.51	6.8	6.5	99.5	119.9	85.9	102.6
27	93.2	87.7	95.5	81.0	-2.28	-2.17	0.58	0.57	6.3	6.2	92.6	114.3	83.1	102.6
29	93.0	87.5	95.4	80.4	-1.10	-1.06	0.27	0.27	6.5	6.5	99.4	109.4	93.2	102.6
31	92.9	87.7	94.9	80.1	-0.74	-0.70	0.18	0.17	6.6	6.2	103.8	110.5	96.4	102.6
33	92.9	87.6	94.7	79.7	-1.43	-1.34	0.36	0.35	6.6	6.4	107.7	124.4	90.4	102.6
Avg.	93.0	87.6	95.1	80.2	-1.60	-1.52	0.41	0.40	6.6	6.5	99.0	114.1	89.1	102.6
Std Dv	0.2	0.2	0.3	0.6	0.63	0.61	0.17	0.17	0.2	0.2	7.0	7.9	5.4	0.0
TAKEDOFF - MAXIMUM POWER														
35	93.9	88.6	96.6	81.7	0.74	0.72	-0.23	-0.22	6.5	6.3	140.9	130.1	111.1	102.6
37											NO TRACKING DATA			
39	93.4	88.1	96.1	80.8	-0.42	-0.38	0.07	0.07	6.7	6.5	100.1	102.6	100.1	102.6
41	93.6	88.3	95.8	81.0	1.26	1.23	-0.42	-0.41	7.0	6.8	164.2	143.0	117.8	102.6
Avg.	93.6	88.3	96.2	81.2	0.53	0.52	-0.19	-0.19	6.7	6.5	135.1	125.2	109.7	102.6
Std Dv	0.3	0.4	0.6	0.7	1.22	1.16	0.35	0.34	0.3	0.4	45.8	29.2	12.6	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%														
43	-	91.4	98.1	84.6	1.27	1.20	-	-0.34	-	5.7	442.4	386.1	173.2	151.2
44	95.1	90.7	98.4	84.5	0.05	0.03	-0.07	-0.07	6.5	6.5	261.3	254.8	155.1	151.2
45	95.1	91.1	97.3	83.9	1.00	0.96	-0.35	-0.32	7.1	6.5	299.2	267.1	169.4	151.2
46	93.5	89.3	97.5	82.5	-0.72	-0.69	0.12	0.14	6.2	6.9	267.5	280.0	144.5	151.2
47	95.6	91.7	98.3	84.5	-0.35	-0.25	0.02	0.02	6.9	7.0	480.2	483.1	150.3	151.2
Avg.	94.8	90.8	97.9	84.0	0.25	0.25	-0.07	-0.11	6.7	6.5	350.1	334.2	158.5	151.2
Std Dv	1.1	1.1	0.6	1.0	0.99	0.93	0.25	0.24	0.5	0.6	119.4	113.5	14.3	0.0

TABLE NO. B.6-2.3

BELL 204L HELICOPTER

CORRECTION DATA

BOT/TSC
12/24/81

JUNE 26, 1980

SITE: 3 CENTERLINE - 150 M. EAST

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)			
EV	EPNL	NEL	FNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
1	89.5	86.0	92.1	78.2	-2.36	-2.28	0.65	0.69	6.2	6.6	79.2	100.7	71.0	90.2
2	88.6	84.9	92.2	78.8	-1.62	-1.56	0.43	0.42	6.0	5.9	81.7	96.2	76.7	90.2
3	89.7	86.0	92.8	78.5	-2.00	-1.93	0.55	0.58	6.3	6.6	79.4	97.2	73.7	90.2
4	88.7	85.3	92.4	79.3	-3.03	-2.91	0.82	0.79	6.1	5.9	67.3	91.9	66.1	90.2
Avg.	89.1	85.6	92.4	78.7	-2.25	-2.17	0.61	0.62	6.2	6.2	76.9	96.5	71.9	90.2
Std Dv	0.6	0.7	0.4	0.6	0.73	0.70	0.20	0.19	0.2	0.5	8.0	4.4	5.5	0.0
700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
5	85.2	82.0	84.6	71.6	-2.82	-2.58	0.79	0.82	7.2	7.5	176.9	227.7	164.9	212.1
6	83.3	80.2	83.8	70.9	-1.32	-1.22	0.34	0.33	7.2	7.0	197.5	220.1	190.3	212.1
7	84.9	81.8	84.5	71.1	-1.95	-1.80	0.53	0.53	7.2	7.2	189.0	224.0	179.0	212.1
8	83.8	80.5	84.7	72.2	-1.60	-1.48	0.42	0.39	7.0	6.6	198.1	227.3	184.9	212.1
Avg.	84.3	81.1	84.4	71.4	-1.92	-1.77	0.52	0.52	7.1	7.1	190.4	224.8	179.8	212.1
Std Dv	1.1	1.1	0.5	0.7	0.80	0.72	0.24	0.27	0.1	0.5	12.1	4.3	13.4	0.0
1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
9	82.7	79.8	81.1	67.8	-1.47	-1.34	0.38	0.39	7.6	7.7	270.4	303.8	270.2	303.6
10											NO TRACKING DATA			
11	82.8	80.3	80.9	69.1	-0.92	-0.82	0.21	0.20	7.7	7.4	294.7	314.0	284.9	303.6
12	81.5	78.3	80.9	68.3	-1.08	-0.98	0.25	0.25	7.1	7.0	284.7	308.7	279.9	303.6
Avg.	82.3	79.5	81.0	68.4	-1.16	-1.05	0.28	0.28	7.5	7.3	283.2	308.8	278.3	303.6
Std Dv	1.0	1.5	0.2	0.9	0.40	0.38	0.13	0.14	0.5	0.5	17.3	7.2	10.6	0.0

TABLE NO. B.6-3.3

BELL 206L HELICOPTER

DOT/TSC
12/24/81

CORRECTION DATA

JUNE 26, 1980

SITE: 3 CENTERLINE - 150 M. EAST

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	GRAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR	(ACTUAL)	(REFERENCE)
1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
13	-	77.2	77.1	63.6	-1.55	-1.40	-	7.8	408.1	456.0	408.1	456.0	408.1	456.0
14	-	75.6	75.8	63.5	-1.42	-1.26	-	7.3	413.5	456.6	413.5	456.0	413.0	456.0
15	-	75.9	78.1	62.7	-2.38	-2.00	-	8.0	446.9	491.2	414.9	456.0	414.9	456.0
16	77.2	74.7	77.8	62.3	-3.59	-2.54	0.21	6.3	956.7	1034.6	421.7	456.0	421.7	456.0
Avg.	77.2	75.8	77.2	63.0	-2.23	-1.80	0.21	6.3	556.3	609.6	414.4	456.0	414.4	456.0
Std Dv	-	1.3	1.2	0.8	1.22	0.72	-	0.4	164.8	174.7	6.9	0.0	6.9	0.0
2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS														
17	-	73.7	74.2	61.0	-0.63	-0.51	-	7.6	594.3	611.4	591.4	608.4	591.4	608.4
18	-	74.7	73.9	60.0	-0.67	-0.55	-	8.1	592.4	610.8	590.1	608.4	590.1	608.4
19	-	74.2	74.0	60.5	-0.65	-0.53	-	7.8	593.3	611.1	596.7	608.4	596.7	608.4
Avg.	-	74.2	74.0	60.5	-0.65	-0.53	-	7.8	593.3	611.1	596.7	608.4	596.7	608.4
Std Dv	-	0.7	0.2	0.7	0.03	0.03	-	0.4	1.4	0.4	0.9	0.0	0.9	0.0

NO TRACKING DATA

TABLE NO. B.7-1.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 3					CENTERLINE - 150 M. EAST					JUNE 26, 1980					
CORRECTED:					CORRECTIONS (dB)					TRACKING DATA (METERS) (ACTUAL)					
EV	EPNL	NEL	PMLTH	GBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	CONSTANTS	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS															
22	98.5	94.1	101.9	87.3	0.46	0.46	-0.15	-0.15	6.3	6.2	142.9	135.3	141.4	133.9	
24	98.7	94.0	101.7	86.9	0.26	0.27	-0.09	-0.09	6.6	6.5	142.9	138.3	138.4	133.9	
26	98.1	93.6	101.2	86.4	-0.19	-0.15	0.04	0.04	6.4	6.6	138.5	140.3	132.2	133.9	
28	97.8	93.8	100.1	85.8	0.26	0.27	-0.10	-0.11	7.3	7.5	143.9	139.2	138.4	133.9	
Avg.	98.3	93.8	101.2	86.6	0.20	0.21	-0.07	-0.08	6.7	6.7	142.1	138.3	137.6	133.9	
Std Dv	0.5	0.3	0.9	0.8	0.34	0.32	0.10	0.10	0.5	0.7	2.9	2.6	4.7	0.0	
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS															
30	96.9	92.9	98.9	84.9	-0.10	-0.08	0.01	0.01	6.9	6.7	145.8	146.5	133.2	133.9	
32	96.4	92.1	97.7	82.9	0.14	0.16	-0.06	-0.07	7.0	7.4	166.2	162.7	136.8	133.9	
34	95.8	92.2	98.3	85.1	-0.06	-0.04	0.00	0.00	6.8	6.5	138.7	138.9	133.7	133.9	
36	97.0	92.7	98.2	84.3	-0.03	-0.01	-0.01	-0.01	7.5	7.1	139.1	138.7	134.2	133.9	
Avg.	96.5	92.5	98.3	84.3	-0.01	0.01	-0.01	-0.02	7.0	6.9	147.5	146.7	134.5	133.9	
Std Dv	0.7	0.4	0.6	1.2	0.13	0.13	0.04	0.04	0.4	0.5	15.8	13.8	1.9	0.0	
APPROACH - BEST RATE OF CLIMB															
38	97.9	93.1	98.9	83.4	-0.01	0.01	-0.01	-0.01	7.4	7.9	136.7	136.2	134.4	133.9	
40	95.5	91.5	96.1	81.8	0.30	0.30	-0.11	-0.11	7.1	7.1	140.3	135.4	138.7	133.9	
42	97.7	93.3	100.4	84.6	0.20	0.21	-0.07	-0.08	6.4	7.2	139.0	135.5	137.3	133.9	
Avg.	97.0	92.6	98.4	83.3	0.16	0.17	-0.06	-0.07	7.0	7.4	138.6	135.7	136.8	133.9	
Std Dv	1.9	1.4	3.0	2.0	0.22	0.21	0.07	0.07	0.7	0.6	2.6	0.6	3.1	0.0	

TABLE NO. E.7-2.3

SINJESKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

CENTERLINE - 150 M. EAST

SITE: 3

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPML	NEL	PNLTH	GBSM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
TAKEOFF - HOVER POWER PLUS 102														
21	88.5	83.4	88.8	73.5	-2.34	-2.15	0.57	0.59	7.1	7.4	175.6	211.4	145.1	174.6
23	89.3	84.2	89.4	74.7	-2.15	-2.10	0.64	0.64	7.5	7.4	145.2	177.1	143.2	174.6
25	89.3	84.4	89.8	75.3	-2.08	-1.86	0.50	0.48	6.7	6.4	154.3	183.2	147.0	174.6
27	89.0	84.1	88.9	74.3	-2.08	-1.86	0.56	0.55	7.5	7.3	153.4	182.3	146.9	174.6
29	88.9	83.8	89.3	74.6	-1.89	-1.68	0.46	0.48	6.9	7.2	160.4	187.3	149.6	174.6
31	89.8	84.9	89.6	75.4	-0.71	-0.61	0.16	0.15	7.4	7.0	172.7	181.6	166.1	174.6
33	89.3	84.5	89.6	75.0	-1.61	-1.42	0.41	0.40	7.4	7.3	184.6	209.5	153.9	174.6
Avg.	89.2	84.2	89.3	74.7	-1.84	-1.67	0.47	0.47	7.2	7.1	163.8	190.4	150.3	174.6
Std Dev	0.5	0.5	0.4	0.7	0.60	0.58	0.17	0.18	0.4	0.4	15.5	15.4	8.5	0.0
TAKEOFF - MAXIMUM POWER														
35	90.3	85.8	90.9	76.6	1.61	1.49	-0.50	-0.51	7.5	7.7	214.1	183.6	203.6	174.6
37											NO TRACKING DATA			
39	90.6	85.6	90.5	76.2	1.00	0.95	-0.32	-0.31	7.4	7.3	214.5	194.4	192.7	174.6
41	90.3	85.7	90.9	76.6	2.34	2.15	-0.68	-0.69	7.5	7.6	250.9	203.4	215.4	174.6
Avg.	90.4	85.7	90.8	76.5	1.65	1.53	-0.50	-0.50	7.5	7.5	226.5	193.8	203.9	174.6
Std Dev	0.2	0.1	0.4	0.3	0.95	0.85	0.25	0.27	0.1	0.3	29.9	14.0	16.0	0.0
500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%														
43	95.8	91.7	92.1	84.1	1.21	1.17	-0.41	-0.41	7.4	7.4	175.1	154.1	171.8	151.2
44	95.2	91.2	97.8	84.2	-0.24	-0.22	0.06	0.06	7.2	6.9	156.2	159.1	148.4	151.2
45	96.5	92.3	96.8	84.4	0.98	0.95	-0.31	-0.32	6.7	6.9	179.1	161.2	168.0	151.2
46	94.0	89.9	97.2	83.8	-0.58	-0.51	0.13	0.12	6.5	6.2	156.8	164.1	144.5	151.2
47	96.3	92.5	96.3	84.5	-0.10	-0.08	0.01	0.01	7.2	7.5	170.0	170.4	150.8	151.2
Avg.	95.6	91.5	98.0	84.2	0.25	0.26	-0.10	-0.11	7.0	7.0	167.4	161.8	156.7	151.2
Std Dev	1.2	1.2	0.7	0.3	0.91	0.86	0.28	0.28	0.4	0.6	12.1	7.0	14.3	0.0

TABLE NO. B.5-2.4
BELL 206L HELICOPTER

DOT/TSC
12/26/81

CORRECTION DATA

SIDELINE - 164 M. NORTH

JUNE 26, 1980

SITE: 4

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPML	MEL	PNLTH	dBdM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	EPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
1	88.3	85.3	89.6	77.0	0.00	0.07	-0.06	-0.06	6.9	6.5	185.6	181.6	178.8	175.0
2	87.5	83.6	90.5	76.4	-0.30	-0.27	0.04	0.04	6.4	6.4	172.7	175.4	172.2	175.0
3	87.5	84.6	88.3	76.1	-0.98	-0.86	0.23	0.22	7.1	6.7	162.2	175.0	162.2	175.0
4	87.8	84.0	89.8	76.2	-0.58	-0.53	0.12	0.12	7.2	6.8	213.2	221.9	168.2	175.0
Avg.	87.8	84.4	89.6	76.4	-0.46	-0.40	0.08	0.08	6.9	6.6	183.4	188.5	170.3	175.0
Std Dv	0.5	0.9	1.1	0.5	0.51	0.48	0.15	0.15	0.4	0.2	27.9	27.5	8.5	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
5	87.3	84.1	89.3	75.6	-0.96	-0.93	0.19	0.20	6.2	6.6	279.8	299.7	242.5	259.8
6	83.1	80.3	83.2	70.6	-2.47	-2.25	0.62	0.61	7.1	7.0	277.7	339.5	212.5	259.8
7	85.9	83.0	86.8	73.9	-1.35	-1.23	0.29	0.29	6.2	6.3	240.6	267.7	233.5	259.8
8	83.6	80.8	83.9	71.2	-1.98	-1.81	0.51	0.52	7.1	7.2	222.4	262.9	219.8	259.8
Avg.	84.9	82.0	85.8	72.8	-1.69	-1.55	0.40	0.40	6.7	6.8	255.1	292.4	227.1	259.8
Std Dv	2.4	2.2	3.4	2.9	0.82	0.72	0.24	0.24	0.6	0.5	34.6	43.3	16.5	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
9	84.8	81.6	85.2	70.7	-0.81	-0.78	0.16	0.17	6.9	7.5	348.1	367.2	321.1	338.6
10	82.1	79.2	81.2	68.3	-1.95	-1.78	0.48	0.50	7.1	7.3	289.9	338.8	289.7	338.6
11	85.9	82.5	84.9	72.1	0.19	0.19	-0.12	-0.12	6.8	7.1	381.4	366.4	352.4	338.6
12	81.5	79.1	81.9	68.9	-1.72	-1.56	0.39	0.41	6.6	6.9	295.9	338.7	295.8	338.6
Avg.	83.6	80.6	83.8	70.0	-1.07	-0.98	0.23	0.24	6.8	7.2	328.8	352.8	314.8	338.6
Std Dv	2.6	2.1	3.3	2.1	1.19	1.09	0.33	0.34	0.3	0.3	53.6	19.8	35.0	0.0

TABLE NO. E.6-3.4

BELL 206L HELICOPTER

DRI/TSC
12/26/81

CORRECTION DATA

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 26, 1980

CORRECTED				CORRECTIONS (JB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPNL	NEL	PNLTH	USRM	$\Delta 1(P)$	$\Delta 1(A)$	$\Delta 2(P)$	$\Delta 2(A)$	K(P)	K(A)	SR	CFA	SR	CFAR
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
13	81.6	78.6	81.0	60.5	-1.61	-1.47	0.32	0.36	6.8	7.5	495.9	553.7	429.9	480.0
14	78.8	76.3	75.9	64.5	-2.08	-1.88	0.47	0.47	7.1	7.1	420.5	489.1	412.7	480.0
15	81.9	78.9	81.6	66.8	-0.89	-0.80	0.15	0.16	6.9	7.4	543.4	570.4	457.2	480.0
16	79.2	76.7	75.5	64.0	-1.68	-1.51	0.39	0.39	7.6	7.6	426.4	480.0	426.4	480.0
Avg.	80.3	77.6	79.0	65.5	-1.56	-1.41	0.33	0.34	7.1	7.4	471.6	523.3	431.6	480.0
Std Dv	2.0	1.6	3.3	1.6	0.61	0.55	0.17	0.16	0.4	0.5	72.1	55.6	22.8	0.0
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
17											NO TRACKING DATA			
18	77.8	75.0	74.5	62.1	-0.67	-0.55	0.09	0.09	7.6	7.4	617.1	634.5	609.4	626.6
19	79.2	76.4	77.6	63.4	-0.64	-0.52	0.08	0.08	7.1	7.4	726.5	744.8	511.2	626.6
Avg.	78.5	75.7	76.1	62.7	-0.65	-0.53	0.08	0.08	7.4	7.4	671.8	689.6	610.3	626.6
Std Dv	1.0	1.6	2.2	0.9	0.02	0.02	0.01	0.01	0.4	0.0	77.4	78.0	1.2	0.0

TABLE NO. E.7-1.4

SINKOVSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 4				SIDELINE - 164 M. NORTH				JUNE 26, 1980						
CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS) (ACTUAL)			
EV	EPNL	NEL	FNLTH	DBAM	$\wedge(1(P))$	$\wedge(1(A))$	$\wedge(2(P))$	$\wedge(2(A))$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS														
22	97.5	93.2	98.9	85.2	-0.47	-0.41	0.11	0.11	7.2	7.1	250.4	259.5	184.3	191.0
24	97.9	93.9	100.1	86.9	-0.43	-0.37	0.09	0.09	6.4	5.9	234.7	242.7	184.7	191.0
26	99.2	95.4	101.9	88.1	-0.39	-0.34	0.09	0.09	6.8	6.6	218.3	225.2	185.1	191.0
28	98.7	94.6	101.0	87.4	-0.11	-0.07	0.01	0.01	6.5	6.2	231.1	231.7	190.5	191.6
Avg.	98.3	94.3	100.5	86.9	-0.35	-0.30	0.07	0.07	6.7	6.5	233.7	239.8	186.2	191.0
Std Dv	1.0	1.1	1.6	1.5	0.20	0.19	0.05	0.05	9.4	9.7	16.2	18.4	3.6	0.0
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS														
30	94.2	90.3	95.6	80.7	-0.53	-0.48	0.12	0.13	6.4	7.0	182.9	191.1	182.8	191.0
32	94.4	90.5	98.2	84.9	-0.49	-0.43	0.11	0.10	5.8	5.3	191.6	200.0	182.9	191.0
34	93.6	89.8	92.6	78.3	-0.31	-0.25	0.05	0.05	8.1	8.5	460.2	466.4	188.4	191.0
36	94.1	90.5	93.6	79.7	-0.30	-0.26	0.07	0.07	7.7	7.9	211.6	215.9	187.2	191.0
Avg.	94.1	90.3	95.0	80.9	-0.41	-0.35	0.09	0.09	7.0	7.2	261.6	268.3	185.3	191.0
Std Dv	0.4	0.4	3.0	3.5	0.15	0.14	0.04	0.04	1.3	1.7	162.8	162.2	3.6	0.0
APPROACH - BEST RATE OF CLIMB														
38	96.8	92.9	97.4	84.1	0.19	0.21	-0.08	-0.08	7.3	6.8	288.2	280.6	196.1	191.0
40	94.2	90.5	97.7	82.6	0.04	0.05	-0.02	-0.03	5.6	5.8	196.2	194.2	192.9	191.0
42	97.5	93.3	100.6	86.2	0.27	0.28	-0.09	-0.09	5.9	6.1	217.1	210.0	197.4	191.0
Avg.	96.2	92.2	98.6	84.3	0.17	0.18	-0.06	-0.07	6.3	6.2	233.8	228.3	195.5	191.0
Std Dv	2.4	2.1	2.5	2.5	0.17	0.17	0.05	0.05	1.2	0.7	68.2	65.0	3.3	0.0

TABLE NO. E-7-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 26, 1980

EV	CORRECTED			CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (ACTUAL)			TRACKING DATA (REFERENCE)		
	EPNL	NEL	FNLTH	GBAM	$\Delta 1(F)$	$\Delta 1(G)$	$\Delta 2(P)$	$\Delta 2(A)$	K(F)	K(A)	SR	CPA	SRR	CPAR
TAKEOFF - HOVER POWER PLUS 10%														
21	92.1	86.9	92.7	78.0	0.10	0.14	-0.09	-0.09	7.5	7.2	216.3	210.5	209.8	204.2
23	91.7	86.3	92.1	77.2	-0.95	-0.31	0.21	0.21	7.2	7.3	194.6	208.0	191.0	204.2
25	92.0	87.2	92.0	78.2	-1.16	-1.00	0.29	0.27	7.8	7.2	188.1	205.3	187.1	204.2
27	92.5	87.7	94.2	79.5	-1.10	-0.96	0.24	0.25	6.8	6.9	191.4	207.6	188.3	204.2
29	91.8	86.9	92.3	78.0	-1.06	-0.89	0.22	0.24	6.8	7.2	189.4	204.3	189.4	204.2
31	91.6	86.9	91.3	77.9	-0.80	-0.67	0.17	0.17	7.8	7.1	194.6	205.9	193.0	204.2
33	91.4	86.8	92.0	77.4	-1.02	-0.87	0.24	0.24	7.1	7.1	191.2	206.4	189.1	204.2
Avg.	91.9	87.0	92.4	78.0	-0.86	-0.72	0.19	0.18	7.3	7.2	195.1	206.9	192.5	204.2
Std Dev	0.4	0.4	1.0	0.8	0.48	0.43	0.14	0.14	0.5	0.1	10.6	2.3	8.6	0.0
TAKEOFF - MAXIMUM POWER														
35	92.1	87.1	93.3	79.4	0.38	0.39	-0.14	-0.14	7.0	7.0	214.4	204.6	214.0	204.2
37	-	87.0	92.4	77.9	0.19	0.21	-	-0.09	-	7.1	210.2	204.3	210.1	204.2
41	92.6	87.5	92.8	77.8	1.06	0.97	-0.34	-0.33	7.6	7.4	229.9	207.5	226.2	204.2
Avg.	92.3	87.2	92.8	78.0	0.54	0.52	-0.24	-0.19	7.3	7.2	218.2	205.5	216.8	204.2
Std Dev	0.4	0.4	0.6	0.5	0.65	0.56	0.14	0.18	0.4	0.3	14.6	2.5	11.9	0.0
500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS TORQUE > 90%														
43	96.5	93.0	99.4	86.5	0.18	0.19	-0.07	-0.06	6.1	5.8	218.5	213.2	218.2	212.9
44	96.7	93.2	99.1	86.0	0.06	0.07	-0.04	-0.04	7.1	6.7	215.8	213.0	215.8	212.9
45	96.5	92.7	99.1	86.3	0.02	0.04	-0.03	-0.03	6.4	6.6	215.0	213.1	214.9	212.9
46	95.2	91.6	97.5	85.0	-0.59	-0.53	0.14	0.13	6.8	6.6	227.9	238.8	203.3	212.9
47	96.4	92.9	98.1	85.5	-0.67	-0.61	0.17	0.16	6.9	6.2	201.0	213.0	200.9	212.9
Avg.	96.3	92.7	98.6	85.8	-0.20	-0.17	0.03	0.03	6.7	6.4	215.7	218.2	210.6	212.9
Std Dev	0.7	0.7	0.9	0.7	0.46	0.43	0.13	0.12	0.5	0.4	11.2	13.5	9.2	0.0

TABLE NO. E.5-2.5
BELL 204L HELICOPTER

DOT/ISC
12/26/81

CORRECTION DATA

SIDELINE - 150 H. SOUTH

JUNE 26, 1980

SITE: 5

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	REL	PNLTH	GEAR	$\Delta 1(F)$	$\Delta 1(A)$	$\Delta 2(F)$	$\Delta 2(A)$	K(F)	K(A)	SR	CPA	SRK	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
1	87.1	83.7	88.9	75.7	-0.68	-0.63	0.17	0.16	7.1	6.8	165.7	175.0	165.7	175.0
2											NO TRACKING DATA			
3	87.5	84.2	89.7	76.3	-0.46	-0.43	0.10	0.10	7.1	6.8	169.4	175.0	169.4	175.0
4	86.7	84.2	89.1	76.1	-1.14	-0.97	0.24	0.25	6.7	6.9	172.6	187.7	161.0	175.0
Avg.	87.1	84.0	89.2	76.0	-0.76	-0.68	0.17	0.17	7.0	6.8	169.2	179.2	165.3	175.0
Std Dv	0.6	0.4	0.6	0.5	0.49	0.39	0.10	0.11	0.3	0.0	4.9	10.3	6.0	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
5	83.3	80.7	83.9	70.8	-2.75	-2.49	0.69	0.73	6.6	7.0	206.6	263.2	203.9	259.8
6	86.3	82.9	88.3	74.4	0.17	0.14	-0.11	-0.12	7.2	7.3	275.1	284.6	269.4	259.8
7	83.9	81.5	84.9	71.5	-1.29	-1.17	0.30	0.30	6.7	6.8	235.3	261.0	234.2	259.8
8	86.0	82.6	87.6	73.5	-0.38	-0.38	0.05	0.05	7.1	7.4	276.0	280.2	255.9	259.8
Avg.	84.9	81.9	84.2	72.6	-1.06	-0.97	0.23	0.24	6.9	7.1	253.3	272.2	240.9	259.8
Std Dv	1.8	1.3	2.6	2.0	1.56	1.41	0.43	0.45	0.4	0.4	48.8	14.6	35.0	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
9	81.1	78.7	79.6	66.8	-1.73	-1.55	0.46	0.46	7.6	7.5	294.8	339.2	294.3	338.6
10	83.7	80.7	83.2	71.0	-0.92	-0.84	0.21	0.19	7.6	7.1	328.8	349.9	318.2	338.6
11	80.7	78.4	79.2	66.2	-2.30	-2.07	0.59	0.62	7.1	7.5	281.7	340.8	279.9	338.6
12	83.9	79.8	83.4	70.1	-0.33	-0.30	0.02	0.02	7.3	7.1	366.1	368.9	335.9	338.6
Avg.	82.1	79.4	81.4	68.5	-1.32	-1.19	0.32	0.32	7.4	7.3	317.8	349.7	307.1	338.6
Std Dv	1.8	1.3	2.8	2.9	1.07	0.95	0.31	0.33	0.3	0.3	46.3	16.8	30.5	0.0

TABLE NO. B.6-3.5

BELL 206L HELICOPTER

DOT/TSC
12/26/81

CORRECTION DATA

EV	CORRECTED				SITE: 5	SIDELINE - 150 M. SOUTH	JUNE 26, 1980			
	EPNL	NEL	PNLTH	GBAM			CORRECTIONS (dB)			
							$\wedge(1(P) \wedge 1(A))$	$\wedge(2(P) \wedge 2(A))$	CONSTANTS	TRACKING DATA (METERS)
									K(P) K(A)	SR CPA SRR CPAR
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS										
13	80.0	77.6	76.2	64.0			-1.45	-1.26	7.9 7.6	435.3 480.1 435.2 480.0
14	80.3	77.0	79.2	66.1			-0.54	-0.06	7.7 7.4	512.9 522.8 470.9 480.0
15	78.6	76.4	75.2	62.7			-1.98	-1.75	7.6 7.8	491.1 561.5 419.9 480.0
16	80.2	77.1	79.2	65.6			-0.54	-0.47	7.4 7.6	496.7 506.8 470.5 480.0
Avd.	79.7	77.6	77.5	64.6			-1.13	-0.99	7.7 7.6	484.0 517.8 449.1 480.0
Std Dev	1.0	0.6	2.5	1.9			0.87	0.76	0.2 0.2	41.3 41.7 31.5 0.0
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS										
17										NO TRACKING DATA
18	77.4	74.5	75.2	62.2			-0.58	-0.49	7.5 7.5	644.8 657.3 614.7 626.6
19	77.2	74.7	73.5	60.5			-0.62	-0.49	7.9 7.9	612.9 627.4 612.1 626.6
Avd.	77.3	74.6	74.3	61.4			-0.60	-0.49	7.7 7.7	628.9 642.4 613.4 626.6
Std Dev	0.2	0.1	1.2	1.2			0.03	0.00	0.3 0.3	22.5 21.1 1.8 0.0

TABLE NO. B.7-1.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	NEL	PNLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS														
22	93.2	89.2	94.6	80.8	0.85	0.82	-0.30	-0.29	7.5	7.3	242.3	220.8	209.6	191.0
24	92.8	88.9	94.2	80.7	0.50	0.49	-0.19	-0.18	7.5	7.1	204.9	193.2	202.6	191.0
26	92.4	88.5	93.8	80.3	-0.01	0.01	-0.03	-0.03	7.3	7.0	207.3	205.2	192.9	191.0
28	91.9	88.0	93.0	79.6	0.26	0.26	-0.11	-0.11	7.3	7.1	200.4	193.6	197.7	191.0
Avg.	92.6	88.7	93.9	80.4	0.40	0.39	-0.16	-0.15	7.4	7.1	213.7	203.2	200.7	191.0
Std Dev	0.7	0.6	0.8	0.7	0.45	0.42	0.14	0.14	0.2	0.2	23.6	15.9	8.7	0.0
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS														
30	93.8	90.0	94.1	80.4	0.36	0.36	-0.14	-0.14	7.3	7.1	207.7	198.7	199.6	191.0
32	94.6	90.6	94.0	79.5	0.60	0.59	-0.23	-0.24	8.0	8.3	207.8	194.3	204.3	191.0
34	93.2	89.8	94.4	81.4	0.50	0.49	-0.17	-0.16	6.9	6.5	237.7	224.5	202.2	191.0
36	93.9	90.1	94.2	80.4	0.51	0.50	-0.19	-0.19	7.7	7.6	216.2	204.2	202.2	191.0
Avg.	93.9	90.1	94.2	80.4	0.49	0.48	-0.18	-0.18	7.5	7.4	217.3	205.4	202.1	191.0
Std Dev	0.7	0.4	0.2	0.9	0.12	0.12	0.05	0.05	0.6	0.9	17.3	16.3	2.4	0.0
APPROACH - BEST RATE OF CLIMB														
38	91.2	87.2	91.3	77.7	-0.20	-0.17	0.03	0.03	7.4	7.1	195.6	197.6	189.0	191.0
40	93.1	89.6	93.9	80.3	0.17	0.17	-0.07	-0.07	7.1	7.2	199.9	195.3	195.4	191.0
42	92.0	88.4	92.4	78.7	-0.09	-0.07	0.01	0.01	7.4	7.4	194.4	194.9	190.4	191.0
Avg.	92.1	88.4	92.5	78.9	-0.04	-0.02	-0.01	-0.01	7.3	7.3	196.6	196.0	191.6	191.0
Std Dev	1.4	1.7	1.9	1.9	0.27	0.25	0.07	0.07	0.2	0.2	4.1	2.1	4.8	0.0

SIKORSKY UH-60A BLACKHAWK HELICOPTER

18/82/21
DOT/TSC

CORRECTION DATA

JUNE 26, 1980

SIDELINE - 150 M. SOUTH

5:31IS

CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (ACTUAL)				TRACKING DATA (REFERENCE)	
EV	EPNL	NEL	PNLTM	GBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(H)	SR	CPA	SRR	CPAR	
TAKEOFF - HOVER POWER PLUS 10Z															
21	89.1	85.0	88.8	74.8	-1.42	-1.20	0.34	0.34	7.4	7.5	184.9	205.4	183.9	204.2	
23	89.1	85.2	89.0	75.1	-1.40	-1.15	0.34	0.34	7.6	7.6	186.8	207.1	184.2	204.2	
25	89.7	85.7	89.8	76.1	-0.89	-0.70	0.19	0.19	7.4	7.3	192.6	204.4	192.4	204.2	
27	89.6	85.6	90.0	76.1	-1.10	-0.89	0.25	0.25	7.3	7.3	189.7	205.3	188.7	204.2	
29	90.0	85.8	89.9	76.0	-0.65	-0.52	0.14	0.14	7.7	7.6	198.5	206.9	195.9	204.2	
31	89.7	85.6	89.8	75.1	-0.11	-0.05	-0.02	-0.01	7.4	7.2	208.0	207.0	205.2	204.2	
33	90.2	86.2	90.6	77.0	-0.43	-0.33	0.08	0.08	7.5	7.3	202.4	207.3	199.4	204.2	
AVS.															
Std Dv	89.6	85.5	89.7	75.9	-0.86	-0.69	0.19	0.19	7.5	7.4	194.7	206.2	192.8	204.2	
	0.5	0.4	0.7	0.8	0.54	0.45	0.15	0.14	0.2	0.2	9.4	1.3	8.7	0.0	
TAKEOFF - MAXIMUM POWER															
35	89.9	85.7	90.4	76.2	0.81	0.76	-0.28	-0.28	7.8	7.7	225.2	207.3	221.9	204.2	
37											NO TRACKING DATA				
41	89.3	85.1	88.6	74.6	0.17	0.19	-0.09	-0.09	7.9	7.9	212.1	206.6	209.6	204.2	
	-	85.0	89.4	74.6	1.02	0.93	-	-0.32	-	7.7	309.4	281.7	224.3	204.2	
AVS.															
Std Dv	89.6	85.3	89.5	75.1	0.67	0.63	-0.18	-0.23	7.9	7.8	248.9	231.9	218.6	204.2	
	0.4	0.6	1.3	1.3	0.63	0.55	0.13	0.17	0.1	0.1	74.7	61.0	12.1	0.0	
500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90Z															
43	95.4	92.1	97.8	85.4	1.10	1.05	-0.32	-0.32	6.7	6.7	257.0	236.2	237.8	212.9	
44	95.9	92.2	98.5	85.1	-0.12	-0.10	0.01	0.01	6.6	6.4	217.7	218.8	211.9	212.9	
45	95.9	92.4	97.5	85.2	0.98	0.91	-0.30	-0.30	7.2	7.2	266.9	242.5	234.3	212.9	
46	95.4	91.8	98.0	85.3	-0.07	-0.04	0.00	0.00	6.3	5.5	242.2	241.8	213.3	212.9	
47	96.0	92.6	97.4	85.5	0.44	0.44	-0.15	-0.14	6.9	6.7	261.6	248.9	223.9	212.9	
AVS.															
Std Dv	95.7	92.2	97.9	85.3	0.47	0.45	-0.15	-0.15	6.7	6.5	247.1	236.4	224.2	212.9	
	0.4	0.3	0.5	0.2	0.66	0.61	0.18	0.18	0.4	0.7	22.9	13.8	13.7	0.0	

BELL 204L HELICOPTER

18/92/101
DOT/TSC

CORRECTION DATA

JUNE 26, 1980

SIDELINE - 150 M. SOUTH (FLUSH)

95 :3115 SITE

CORRECTED					CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
EV	EPWL	NEL	PHLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
1	90.4	86.6	92.5	79.5	-0.80	-0.69	0.17	0.16	7.2	6.6	168.2	177.8	166.2	175.6
2	89.8	86.5	93.3	79.8	-1.00	-0.88	0.19	0.18	6.4	6.3	183.5	196.3	164.2	175.6
3	90.9	87.3	93.0	80.2	-0.56	-0.47	0.11	0.10	7.4	6.9	169.9	175.6	169.9	175.6
4	90.1	86.6	93.4	79.7	-1.17	-1.04	0.23	0.24	6.4	6.5	173.1	188.3	161.5	175.6
Avg.	90.3	86.7	93.0	79.8	-0.88	-0.77	0.18	0.17	6.8	6.6	173.7	184.5	165.4	175.6
Std Dv	0.6	0.4	0.5	0.3	0.32	0.30	0.06	0.07	0.7	0.3	8.4	11.8	4.3	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
5	86.6	84.3	87.1	75.0	-2.95	-2.57	0.75	0.75	7.2	7.1	207.6	264.1	204.9	260.8
6	89.6	86.3	91.7	78.0	0.09	0.12	-0.11	-0.11	7.2	7.2	295.9	285.5	270.3	260.8
7	87.1	84.8	88.0	75.9	-1.50	-1.23	0.32	0.31	7.2	7.0	236.2	262.0	235.2	260.8
8	89.2	86.1	91.6	77.6	-0.54	-0.45	0.05	0.05	6.9	7.3	292.3	296.9	256.8	260.8
Avg.	88.1	85.4	89.6	76.6	-1.22	-1.03	0.25	0.25	7.1	7.2	258.0	277.1	241.8	260.8
Std Dv	1.8	1.2	2.9	1.8	1.62	1.43	0.46	0.46	0.2	0.2	53.1	20.7	34.9	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
9	85.0	82.7	83.9	71.7	-1.82	-1.69	0.46	0.46	7.6	7.5	310.9	357.6	295.4	339.7
10	86.7	84.1	86.5	73.2	-1.42	-1.19	0.20	0.21	7.4	7.7	551.9	587.4	319.2	339.7
11	84.0	82.0	82.6	70.8	-2.39	-2.16	0.63	0.63	7.7	7.7	282.9	341.9	281.1	339.7
12	86.4	83.4	86.5	73.2	-0.35	-0.34	0.03	0.03	7.4	7.4	367.3	370.2	337.0	339.7
Avg.	85.6	83.0	84.9	72.2	-1.49	-1.34	0.33	0.33	7.5	7.6	378.3	414.3	308.2	339.7
Std Dv	1.5	1.1	2.4	1.5	1.05	0.95	0.33	0.33	0.2	0.2	148.2	142.0	30.4	0.0

TABLE NO. B.6-3.5G

BELL 206L HELICOPTER

DOI/TSC
12/26/81

CORRECTION DATA

SITE: 5G		SIDELINE - 150 M. SOUTH (FLUSH)				JUNE 26, 1980			
CORRECTED		CORRECTIONS (dB)				TRACKING DATA (METERS)			
EV	EPNL	NEL	PWLIM	dBAM	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	CONSTANTS	SR	CPA	SRR CPAR
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS									
13	83.1	80.8	80.9	68.3	-1.49 -1.31 0.32 0.33	7.6 7.8	463.1	510.6	436.4 481.2
14	83.3	80.3	82.9	69.6	-0.56 -0.53 0.06 0.06	7.4 7.3	513.8	523.8	472.0 481.2
15	82.0	80.1	79.1	66.9	-1.95 -1.78 0.46 0.46	7.9 8.0	509.0	581.7	421.1 481.2
16	83.5	80.6	82.1	69.5	-0.64 -0.55 0.07 0.07	7.8 7.4	706.5	720.9	471.6 481.2
Avg.	83.0	80.5	81.2	68.6	-1.16 -1.04 0.23 0.23	7.7 7.6	548.1	584.3	450.2 481.2
Std Dv	0.8	0.4	2.0	1.5	0.83 0.75 0.24 0.24	0.3 0.4	132.4	117.8	31.4 0.0
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS									
17							NO TRACKING DATA		
18	80.9	78.1	79.6	66.3	-0.63 -0.55 0.06 0.06	7.5 7.4	715.4	729.2	615.8 627.8
19	80.5	78.3	77.9	65.2	-0.69 -0.57 0.08 0.08	7.6 7.7	763.4	781.4	613.3 627.8
Avg.	80.7	78.2	78.7	65.8	-0.66 -0.56 0.07 0.07	7.6 7.6	739.4	755.3	614.6 627.8
Std Dv	0.3	0.2	1.2	0.8	0.04 0.01 0.01 0.01	0.0 0.2	33.9	36.9	1.8 0.0

TABLE NO. B.7-1.56
SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA									
JUNE 26, 1980									
SITE: 56 SIDELINE - 150 M. SOUTH (FLUSH)									
CORRECTION DATA									
CORRECTIONS (dB)									
CONSTANTS									
TRACKING DATA (METERS)									
CORRECTED									
EV	EPNL	NEL	PWL	TLN	dBAM	$\wedge 1(P) \wedge 1(A)$	$\wedge 2(P) \wedge 2(A)$	K(P)	K(A)
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS									
22	97.1	93.1	98.8	84.8	0.95	0.82	-0.30	-0.30	7.4
24	96.9	93.0	98.9	84.9	0.48	0.48	-0.18	-0.18	7.0
26	96.8	92.6	98.8	84.7	-0.05	0.00	-0.03	-0.03	6.9
28									7.0
Avg.	96.9	92.9	98.8	84.8	0.43	0.43	-0.17	-0.17	7.1
Std Dv	0.2	0.4	0.1	0.2	0.44	0.58	0.19	0.19	0.3
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS									
30	95.5	91.5	97.3	83.2	0.33	0.34	-0.13	-0.13	6.9
32	98.5	94.2	99.2	84.1	0.60	0.58	-0.22	-0.23	7.5
34	97.6	93.6	99.0	85.4	0.49	0.49	-0.18	-0.17	7.3
36	98.0	94.0	98.8	84.8	0.50	0.49	-0.19	-0.18	7.5
Avg.	97.4	93.3	98.6	84.4	0.48	0.47	-0.18	-0.18	7.3
Std Dv	1.6	1.5	1.0	1.1	0.14	0.12	0.05	0.05	0.4
APPROACH - BEST RATE OF CLIMB									
38	96.0	91.7	97.3	82.8	-0.23	-0.18	0.03	0.03	6.8
40	97.1	93.5	99.6	85.4	0.15	0.17	-0.07	-0.07	6.5
42	97.0	92.7	98.0	83.2	-0.17	-0.12	0.01	0.01	7.0
Avg.	96.7	92.6	98.3	83.8	-0.08	-0.04	-0.01	-0.01	6.8
Std Dv	0.9	1.3	1.7	1.9	0.29	0.26	0.07	0.07	0.4
TRACKING DATA (REFERENCE)									
NO TRACKING DATA									
SR	CPA	SRR	CPAR						
210.4	191.8	210.3	191.7						
205.8	194.1	203.3	191.7						
200.7	198.7	193.6	191.7						
205.6	194.8	202.4	191.7						
6.9	5.0	11.9	0.0						
200.7	192.1	200.3	191.7						
203.7	192.4	205.0	191.7						
238.4	225.1	203.0	191.7						
204.9	193.6	202.9	191.7						
212.4	200.8	202.8	191.7						
21.4	19.9	2.4	0.0						
189.8	191.7	189.8	191.7						
197.4	192.9	196.2	191.7						
252.2	252.9	191.2	191.7						
213.1	212.5	192.4	191.7						
48.2	49.5	4.8	0.0						

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOI/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SIDELINE - 150 M. SOUTH (FLUSH)

SITE: 56

CORRECTED					CORRECTIONS (dB)			CONSTANTS		TRACKING DATA (METERS)			
EV	EPNL	NEL	PNLIM	DEAM	^1(P) ^1(A)	^2(P) ^2(A)	K(P)	K(A)	SR	CPA	SRR	CPAR	
TAKEDOFF - HOVER POWER PLUS 10Z													
21	93.2	89.1	94.0	79.7	-1.43	-1.23	0.34	0.35	185.7	206.2	184.6	205.0	
23	93.4	89.3	93.8	79.9	-1.40	-1.20	0.34	0.34	185.3	205.4	184.9	205.0	
25	94.3	90.1	95.0	81.2	-0.86	-0.73	0.19	0.19	193.3	205.2	193.1	205.0	
27	94.3	90.1	95.5	81.4	-1.07	-0.93	0.25	0.25	190.4	206.1	189.4	205.0	
29	94.2	90.0	94.7	80.9	-0.64	-0.54	0.14	0.14	199.3	207.8	196.7	205.0	
31	94.4	89.9	95.2	80.9	-0.13	-0.07	-0.01	-0.01	212.3	211.4	205.9	205.0	
33	95.0	90.6	96.4	82.5	-0.44	-0.36	0.07	0.07	200.1	205.0	200.1	205.0	
AVS.													
Std Bv	0.7	0.6	1.0	1.0	-0.85	-0.72	0.19	0.19	195.2	206.7	193.5	205.0	
NO TRACKING DATA													
35	95.1	90.4	96.4	81.9	0.80	0.77	-0.26	-0.26	225.9	208.0	222.7	205.0	
37													
39	94.0	89.4	94.2	79.9	0.16	0.18	-0.09	-0.09	216.2	210.6	210.4	205.0	
41	94.0	89.4	94.9	79.9	0.97	0.91	-0.31	-0.32	226.8	206.5	225.2	205.0	
AVS.													
Std Bv	0.9	0.9	1.6	1.6	0.64	0.62	-0.22	-0.22	223.0	208.4	219.4	205.0	
8.3 3.0 11.2 0.0													
500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90Z													
43	99.9	97.0	102.9	90.5	1.15	1.06	-0.32	-0.32	277.0	248.2	238.7	213.8	
45	100.1	97.2	103.2	90.9	0.97	0.91	-0.28	-0.27	267.7	243.3	235.2	213.8	
46	99.5	95.9	102.9	89.9	-0.06	-0.06	0.00	0.00	262.9	242.6	214.1	213.8	
47	100.1	97.3	103.4	91.2	0.44	0.43	-0.14	-0.14	262.7	250.0	224.7	213.8	
AVS.													
Std Bv	0.3	0.8	0.3	0.7	0.62	0.58	-0.18	-0.18	262.6	246.0	228.2	213.8	
17.6 4.4 13.6 0.0													

TABLE NO. B.6-2.6
BELL 204L HELICOPTER

D01/TSC
12/26/81

CORRECTION DATA

SITE: 6 SIDELINE - 284 M. NORTH

JUNE 26, 1980

EV	CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)			
	EPNL	WEI	PNL IM	QBAN	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
300 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
1	85.0	82.8	84.4	72.0	-0.45	-0.41	0.06	0.06	7.4	7.5	316.5	322.4	292.4	297.8
2	82.5	79.6	82.5	70.4	-0.21	-0.18	-0.01	-0.01	7.6	7.1	298.3	297.8	298.3	297.8
3	84.6	82.3	83.9	71.8	-0.61	-0.56	0.10	0.10	7.6	7.4	321.7	331.9	288.6	297.8
4	82.9	80.1	83.5	71.1	-0.33	-0.29	0.02	0.02	7.5	7.1	317.6	320.0	295.5	297.8
Avg.	83.8	81.2	83.6	71.3	-0.40	-0.36	0.04	0.04	7.5	7.3	313.5	318.0	293.7	297.8
Std Dv	1.5	2.0	1.0	0.9	0.21	0.20	0.06	0.06	0.1	0.2	12.7	17.7	5.1	0.0
700 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
5	84.8	82.2	84.5	72.1	-0.43	-0.31	0.01	0.01	7.2	7.1	388.6	390.2	352.8	354.3
6	81.1	78.6	80.6	68.3	-1.98	-1.85	0.50	0.50	7.2	7.1	302.2	355.1	301.6	354.3
7	83.4	80.9	82.6	70.2	-0.94	-0.85	0.17	0.17	7.2	7.2	375.6	396.9	335.2	354.3
8	81.3	78.6	81.0	68.1	-1.52	-1.40	0.38	0.38	7.2	7.3	314.5	354.7	314.1	354.3
Avg.	82.7	80.1	82.2	69.7	-1.22	-1.10	0.26	0.26	7.2	7.2	345.2	374.2	325.9	354.3
Std Dv	2.2	2.2	2.2	2.3	0.83	0.82	0.27	0.27	0.0	0.1	52.9	27.6	27.8	0.0
1000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS														
9	83.1	80.2	82.6	69.9	-0.45	-0.42	0.04	0.04	7.1	7.2	435.5	441.0	410.4	415.6
10	80.2	77.4	79.3	66.3	-1.68	-1.52	0.40	0.40	7.3	7.3	367.2	416.5	366.4	415.6
11	84.4	81.4	84.2	70.8	0.66	0.61	-0.24	-0.25	7.0	7.2	460.0	424.7	450.2	415.6
12	79.3	77.0	79.9	66.4	-1.72	-1.53	0.37	0.40	6.7	7.3	367.0	416.2	366.4	415.6
Avg.	81.8	79.0	81.5	68.3	-0.80	-0.71	0.14	0.15	7.0	7.2	407.4	424.6	398.3	415.6
Std Dv	3.0	2.6	2.8	2.8	1.39	1.26	0.37	0.39	0.3	0.1	58.4	14.2	49.4	0.0

TABLE NO. B-6-3.6

BELL 206L HELICOPTER

DOT/TSC
12/26/81

CORRECTION DATA

SITE: 6					SIDELINE - 284 M. NORTH				JUNE 26, 1980			
CORRECTED					CORRECTIONS (dB)				TRACKING DATA (METERS) (ACTUAL) (REFERENCE)			
EV	EPNL	NEI	PNLTH	GBAM	$\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$	CONSTANTS		SR	CPA	SKR	CPAR	
1500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS												
13	80.1	77.4	77.9	65.1	-1.39 -1.27	0.28	7.2 7.4	495.4	542.4	490.6	537.1	
14	77.0	75.1	74.6	62.9	-2.32 -2.06	0.54	7.3 7.4	456.8	541.3	453.2	537.1	
15	81.4	78.6	80.3	67.0	-0.44 -0.40	0.04	7.2 7.4	538.4	544.8	530.8	537.1	
16	77.9	75.7	75.3	62.9	-1.85 -1.63	0.44	7.7 7.6	471.6	537.3	471.4	537.1	
Avg.	79.1	76.7	77.0	64.5	-1.50 -1.34	0.32	7.3 7.5	490.6	541.5	486.5	537.1	
Std Dv	2.4	2.0	3.2	2.4	0.98 0.86	0.27 0.26	0.3 0.2	43.7	3.9	40.7	0.0	
2000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS												
17								NO TRACKING DATA				
18	77.0	74.4	75.3	63.0	-0.69 -0.53	0.08	7.0 6.8	657.3	675.6	653.1	671.3	
19	79.3	76.1	76.4	62.7	-0.56 -0.50	0.07	7.1 7.6	753.9	771.0	656.4	671.3	
Avg.	78.2	75.2	75.9	62.6	-0.67 -0.56	0.07	7.0 7.2	705.6	723.3	654.8	671.3	
Std Dv	1.6	1.2	0.7	0.5	0.02 0.05	0.01	0.0 0.6	68.3	67.4	2.4	0.0	

TABLE NO. B.7-1.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

SITE: 6				SIDELINE - 284 M. NORTH				JUNE 26, 1980						
CORRECTED				CORRECTIONS (dB)				CONSTANTS		TRACKING DATA (METERS)				
EV	EPML	NEL	PMLTH	dBAM	$\wedge 1(P)$	$\wedge 1(A)$	$\wedge 2(P)$	$\wedge 2(A)$	K(P)	K(A)	SR	CPA	SRR	CPAR
APPROACH - BEST RATE OF CLIMB PLUS 10 KTS														
22	91.2	88.2	90.9	77.7	-0.58	-0.50	0.15	0.13	7.5	7.7	429.3	446.0	295.9	307.4
24	92.2	89.3	93.2	79.9	-0.51	-0.44	0.09	0.09	7.0	7.2	410.1	422.5	298.4	307.4
26	92.2	89.1	93.7	80.8	-0.33	-0.27	0.06	0.05	6.8	6.5	318.7	324.8	301.6	307.4
28	91.3	88.4	92.3	79.3	-0.22	-0.17	0.02	0.02	6.9	6.8	312.9	315.3	305.0	307.4
Avg.	91.7	88.8	92.5	79.4	-0.41	-0.34	0.07	0.07	7.1	7.1	367.7	377.2	300.2	307.4
Std Dev	0.7	0.6	1.5	1.6	0.20	0.19	0.06	0.06	0.4	0.7	74.1	81.7	4.9	0.0
APPROACH - BEST RATE OF CLIMB MINUS 10 KTS														
30	88.4	85.3	87.6	74.2	-0.55	-0.51	0.10	0.10	7.1	7.2	377.3	389.8	297.6	307.4
32	88.5	85.2	90.7	77.3	-0.50	-0.43	0.09	0.09	5.8	5.9	303.3	314.8	296.2	307.4
34	89.1	86.1	86.8	74.1	-0.38	-0.33	0.06	0.06	8.0	7.9	336.3	342.6	301.7	307.4
36	88.9	86.0	86.9	73.9	-0.42	-0.34	0.07	0.07	7.6	7.6	320.1	327.2	300.7	307.4
Avg.	88.7	85.7	88.0	74.9	-0.46	-0.40	0.08	0.08	7.1	7.1	334.2	343.6	299.1	307.4
Std Dev	0.4	0.6	2.2	2.0	0.09	0.10	0.02	0.02	1.2	1.1	38.8	40.2	3.2	0.0
APPROACH - BEST RATE OF CLIMB														
38	90.4	87.4	92.8	79.4	0.07	0.10	-0.04	-0.04	6.0	5.9	373.6	367.4	312.6	307.4
40	89.3	86.6	88.4	75.4	-0.09	-0.07	0.00	0.00	6.9	7.2	310.7	310.3	307.9	307.4
42	97.0	93.4	97.0	83.3	0.04	0.08	-0.06	-0.06	7.4	7.5	375.5	368.4	313.3	307.4
Avg.	92.3	89.1	92.7	79.3	0.01	0.04	-0.03	-0.03	6.8	6.9	353.3	348.7	311.3	307.4
Std Dev	5.9	5.2	6.1	5.6	0.12	0.13	0.04	0.04	1.0	1.2	52.1	47.1	4.2	0.0

APPENDIX C

HELICOPTER PERFORMANCE AND
POSITION DATA

Appendix C

Helicopter Performance and Position Data

This data appendix provides graphic and tabular presentations of helicopter performance and position data. Each sub-appendix contains a series of plots depicting the ground track relative to the microphone array centerline as well as flight profiles showing altitude versus distance along the array. Following the plots a series of tables is presented which shows helicopter position relative to each microphone location. These tables contain the following information:

EVENT	Identifies event number and type of operation.
Recorded Time	This is the range time, synchronized with the cockpit clock when PNLTM occurred.
Radiated Time	The time when the PNLTM acoustical energy was radiated.
R/C FPM	This indicates the helicopter rate of climb or descent averaged over 4 seconds centered on PNLTM.
C/D-ANG DEG	The climb or descent angle in degrees averaged over 4 seconds centered on PNLTM.
GS KNOTS	Ground Speed averaged over 4 seconds centered on PNLTM.
CPA Ft.	This is the closest point of approach between the helicopter and the measurement location.
SR Ft.	This is the slant distance between the helicopter and the measurement location at the time of PNLTM.
AR-ANG DEG	This is the acoustical radiation angle between the flight path and SR.

Appendix C

FLIGHT PATH TRACKING PLOTS AND POSITION DATA

Sub-Appendix

Test Session

C1	UH-60A, June 22
C2	S-76 100%, June 23
C3	A-109, June 24
C4	S-76 107%, June 25
C5	UH-60A, June 25
C6	Bell 206-L June 26
C7	UH-60A, June 26

Sub-Appendix C1 Summary
UH60A June 22, 1980
Flight Path Tracking Plots and Position Data

1. FLIGHT PATH TRACKING PLOTS

Event No.	Plot Fig. No.	Operation			
1	C1-1	1000 Ft.	LFO	150 kts	Target Speed
2	"	"	"	"	
3	"	"	"	"	
4	"	"	"	"	
5	"	"	"	"	
39	C1-2	"	"	"	
40	"	"	"	"	
47	"	"	"	"	
48	"	"	"	"	
25	C1-3	500 Ft.	LFO	150 kts	Target Speed
26	"	"	"	132 kts	"
27	"	"	"	115 kts	"
28	"	"	"	152 kts	"
29	"	"	"	132 kts	"
30	"	"	"	115 kts	"
31	C1-4	500 Ft.	LFO	152 kts	Target Speed
32	"	"		132 kts	"
33	"	"		115 kts	"
34	"	"		152 kts	"
35	"	"		132 kts	"
36	"	"		115 kts	"
49	C1-5	500 Ft.	LFO	165 kts	Target Speed
50	"	"		165 kts	"
51	"	"		165 kts	"
52	"	"			

Event No.	Plot Fig. No.	Operation			
41	C1-6	700 Ft.	LFO	150 kts	Target Speed
42	"	"		150 kts	"
43	C1-7	300 Ft.	LFO	150 kts	Target Speed
44	"	"		150 kts	"
37	C1-8	1500 Ft.	LFO	150 kts	Target Speed
38	"	"		150 kts	"
8	C1-9	Takeoff			
9	"	"			
10	"	"			
11	"	"			
12	C1-10	Takeoff			
14	"	"			
15	"	"			
16	C1-11	Approach			
17	"	"			
18	"	"			
19	"	"			
20	"	"			
21	C1-12	Approach			
22	"	"			
23	"	"			
24	"	"			

2. POSITION DATA TABLES

Table Number	Microphone
C1-1	Mic. 1, Centerline Center, 4 ft.
C1-2	Mic. 2, Centerline 150m West 4 ft.
C1-3	Mic. 3, Centerline 150m East 4 ft.
C1-4	Mic. 4, Sideline 164m North 4 ft.
C1-5	Mic. 5, Sideline 150m South 4 ft.
C1-6	Mic. 6, Sideline 284m North 4 ft.
C1-7	Mic. 1G, Centerline Center (Ground)
C1-8	Mic. 1H, Centerline Center 33ft.
C1-9	Mic. 5G, Sideline 150m South (Ground)

FIGURE C1-1

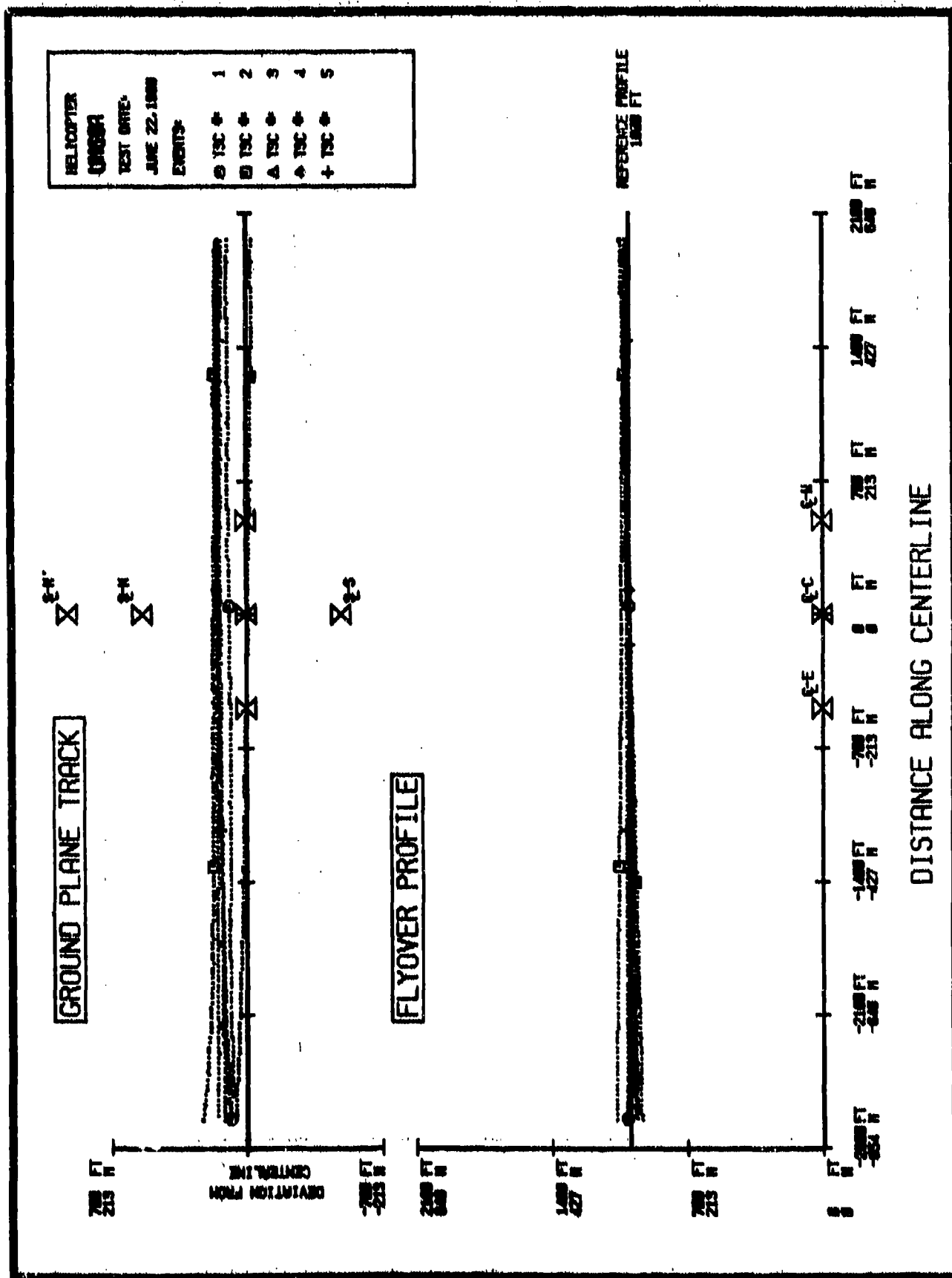
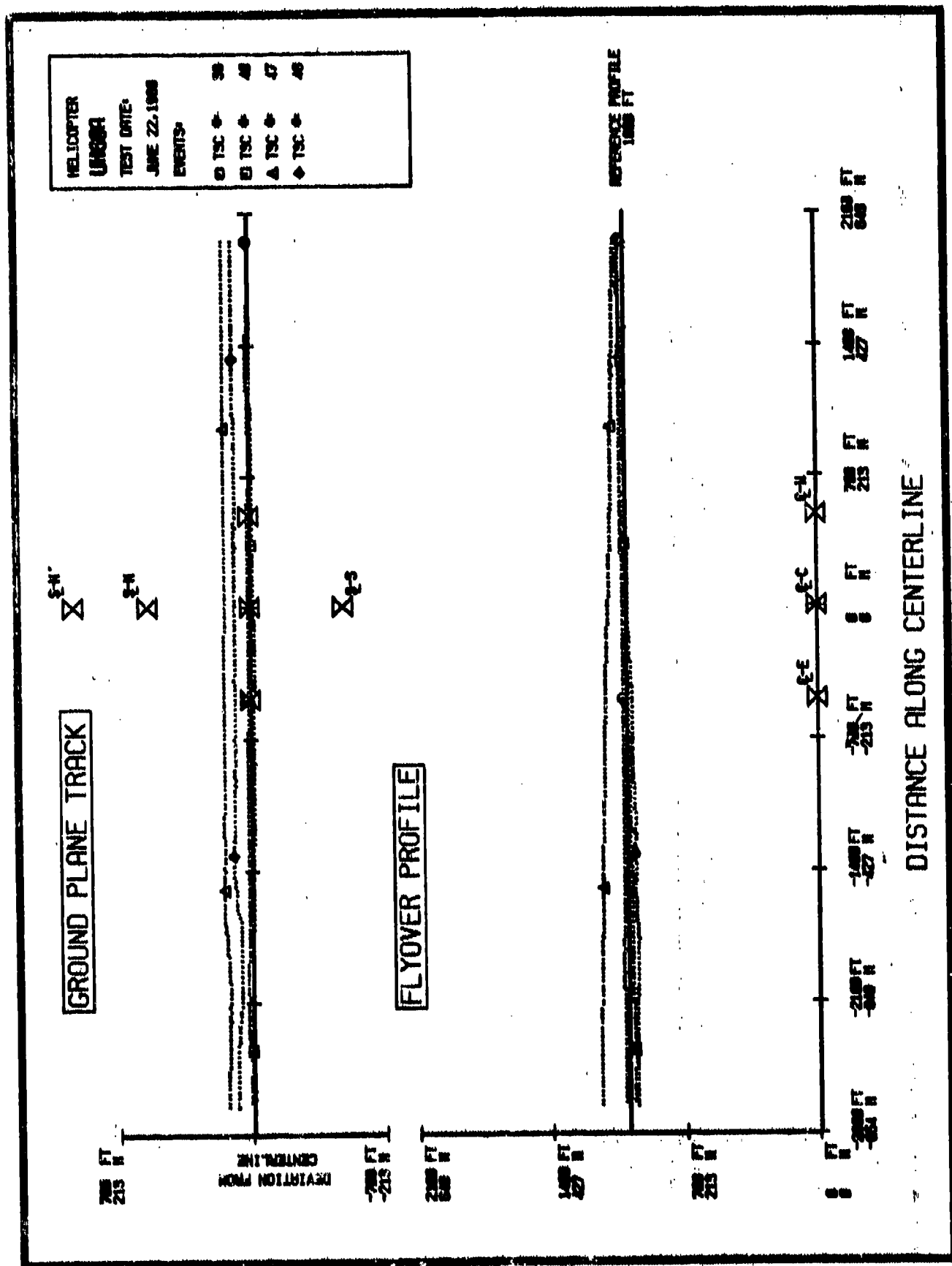


FIGURE C1-2



[illegible]

HELICOPTER



TEST DATE: JUNE 22, 1998

Exhibit

DEVIATION FROM
CENTRAL LINE

28

FLYOVER PROFILE

REFERENCE PROFILE
500 FT

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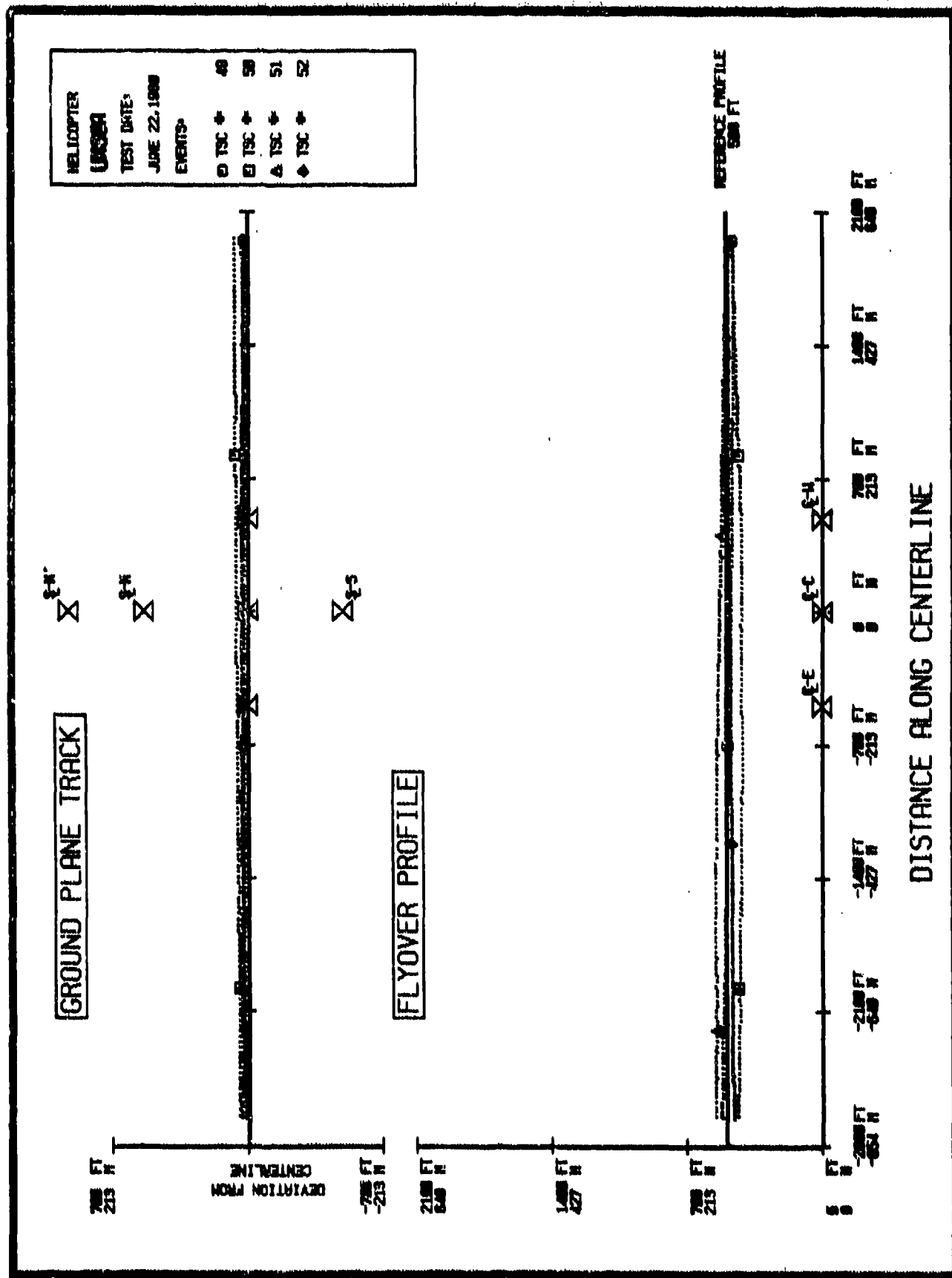
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DISTANCE ALONG CENTERLINE

FIGURE C1-5



[illegible]

HELICOPTER			
UNION			
TEST DATE:			
JUNE 22, 1968			
EVENTS:			
Q TSC #	41		
Q TSC #	42		

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35

FLYOVER PROFILE

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DISTANCE ALONG CENTERLINE

REFERENCE PROFILE
700 FT

GROUND PLANE TRACK

2100 FT
215 H

FLYOVER PROFILE

2100 FT
215 H

REFERENCE PROFILE
1500 FT

DISTANCE ALONG CENTERLINE	2100 FT	1400 FT	700 FT	0 FT	700 FT	1400 FT	2100 FT
0	0	0	0	0	0	0	0
2100 FT	1400 FT	700 FT	0 FT	700 FT	1400 FT	2100 FT	2100 FT
2100 FT	1400 FT	700 FT	0 FT	700 FT	1400 FT	2100 FT	2100 FT

HELICOPTER
UH-1H

TEST DATE
JUNE 22, 1968

EVENTS
TSC # 57
TSC # 58

TSC # 57

GROUND PLANE TRACK

FLYOVER PROFILE

DISTANCE ALONG CENTERLINE

HELICOPTER

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JUNE 22, 1968

STUDY

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FIGURE C1-9

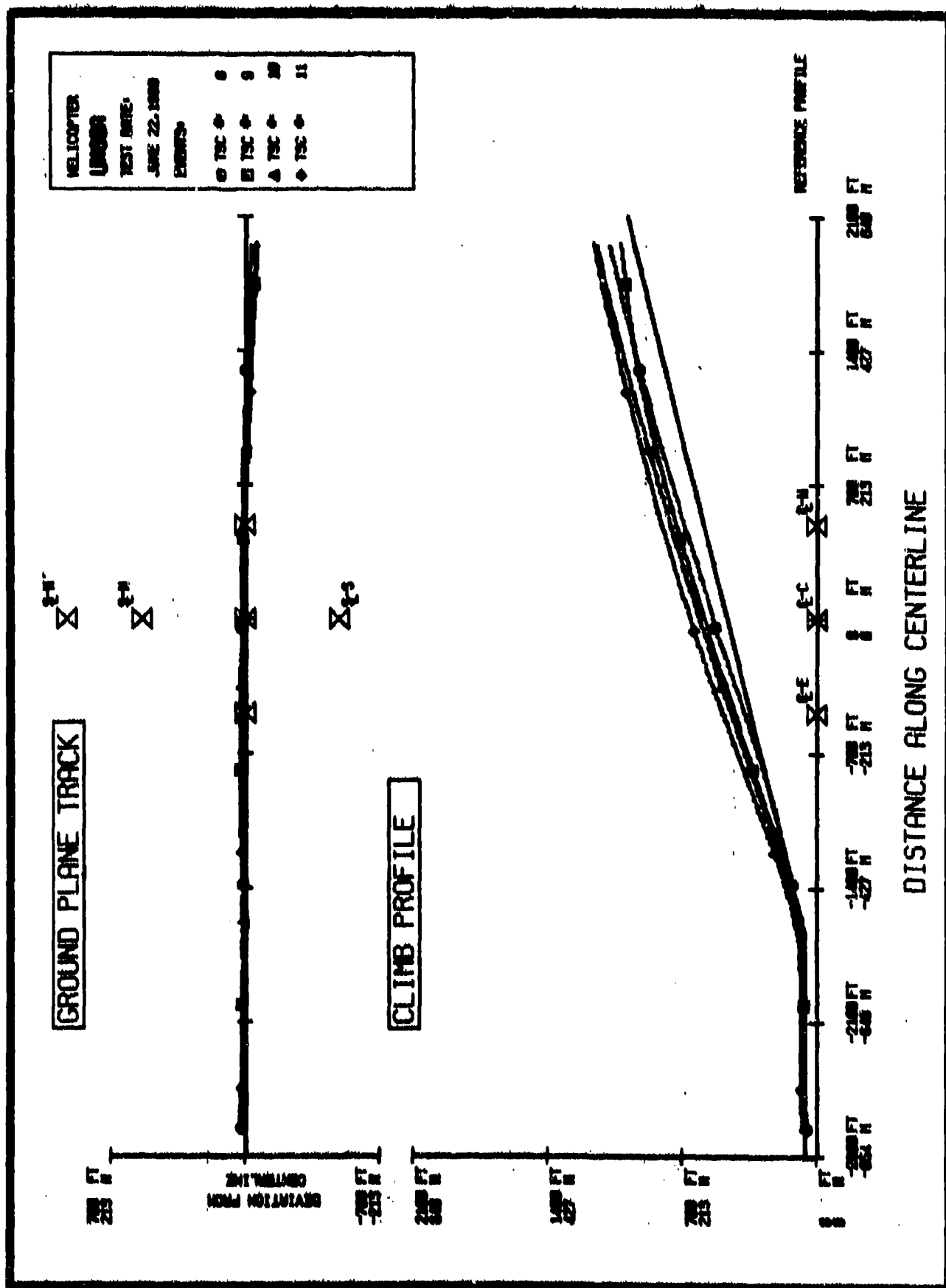


FIGURE C1-11

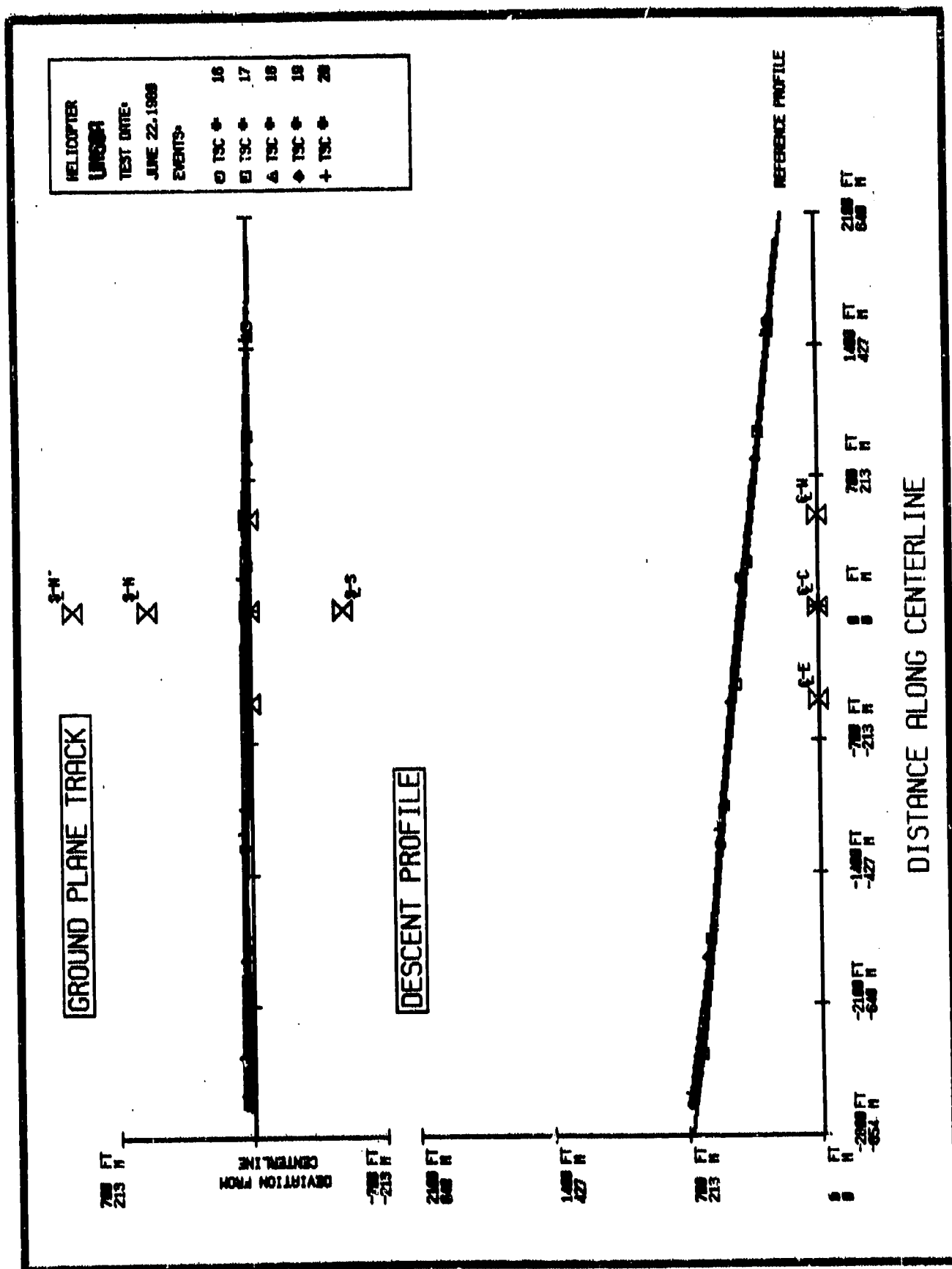


FIGURE C1-12

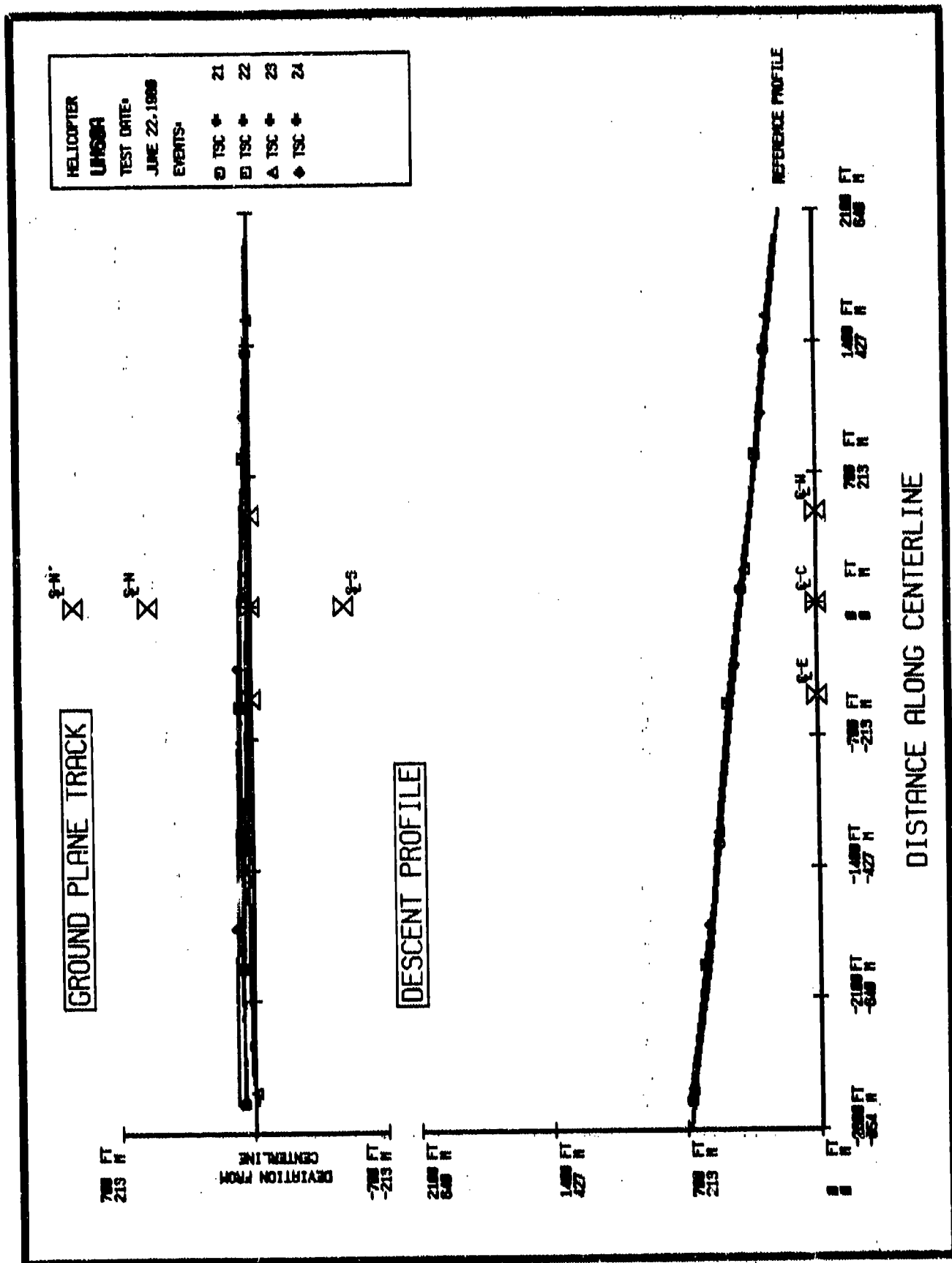


TABLE 01-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 180

UH60A

JAN 29, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1 F-TU	5:52:55.5	5:52:52.2	116.7	0.4	160.0	997.6	1493.5	138.1
3 F-TU	5:52:56.0	5:52:52.7	108.2	0.7	152.4	1050.2	1998.2	148.3
4 F-TU	5:52:56.1	5:52:50.4	431.5	1.8	158.1	998.2	1242.7	128.6
5 F-TU	5:52:56.1	5:52:51.0	17.2	0.2	150.1	1008.3	1881.3	147.7
6 F-TU	5:52:56.1	5:52:50.8	170.7	0.6	160.2	1008.8	1297.8	120.1
10 DEPT	5:52:58.1	5:52:53.5	2401.5	18.0	78.2	511.4	557.0	88.7
11 DEPT	5:52:58.2	5:52:51.5	2288.2	17.7	70.8	552.0	580.4	85.3
12 DEPT	5:52:58.3	5:52:50.0	2338.2	18.4	71.0	578.0	585.8	89.3
13 DEPT	5:52:58.3	5:52:50.5	2352.8	18.3	68.3	623.0	628.7	87.1
14 DEPT	5:52:58.4	5:52:50.5	2356.0	18.1	71.7	555.7	589.6	86.7
15 DEPT	5:52:58.4	5:52:50.5	2320.7	19.1	64.4	598.4	613.8	102.8
16 ARR	5:52:58.4	5:52:53.1	-898.0	-3.1	69.4	590.8	595.8	97.6
17 ARR	5:52:58.4	5:52:47.6	-824.5	-5.8	82.0	400.7	437.7	110.6
18 ARR	5:52:58.4	5:52:45.1	-843.5	-5.2	80.2	381.1	408.0	110.0
19 ARR	5:52:58.4	5:52:44.0	-844.5	-5.2	75.6	389.6	425.3	113.7
20 ARR	5:52:58.4	5:52:41.1	-817.7	-5.2	78.3	404.5	423.5	107.2
21 ARR	5:52:58.4	5:52:41.1	-817.7	-5.2	79.0	407.8	427.8	107.7
22 ARR	5:52:58.4	5:52:41.1	-835.7	-5.3	78.7	393.7	423.3	111.6
23 ARR	5:52:58.4	5:52:41.1	-835.7	-5.3	79.6	404.1	421.8	106.6

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 01-1 (CONT)

TEST DATE: JUNE 22, 1980
 UH60A
 MIC # 1 CENTERLINE CENTER, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 JAN 29, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	GPA FT	SR FT	AR-ANG DEG
23	0:09:27.0	0:09:28.6	-040.0	-2.4	82.8	382.6	432.0	115.0
24	0:14:28.0	0:14:28.6	-038.3	-5.2	80.8	395.5	417.2	100.5
25	0:17:53.5	0:17:53.5	378.3	1.5	144.0	500.2	1130.7	150.3
26	0:21:35.5	0:21:34.7	183.3	0.7	141.1	505.7	938.1	147.3
27	0:24:05.0	0:24:04.5	214.2	0.1	102.2	497.0	525.4	102.6
28	0:28:38.5	0:28:38.0	220.7	1.0	124.1	534.0	592.4	115.6
29	0:29:18.0	0:29:17.4	-137.2	-0.2	122.2	492.0	602.4	134.8
30	0:31:42.0	0:31:42.0	51.7	0.2	122.0	517.2	520.4	110.9
31	0:35:17.5	0:35:16.8	11.2	0.0	142.0	450.2	722.0	141.0
32	0:38:25.0	0:38:24.0	-50.3	-0.2	136.7	475.1	505.6	110.0
33	0:41:52.5	0:41:51.2	122.7	0.7	110.5	482.1	844.7	144.7
34	0:45:13.5	0:45:12.8	433.3	1.6	152.0	500.7	848.2	143.1
35	0:48:34.0	0:48:33.5	72.2	-0.3	120.2	495.0	612.1	122.0
36	0:52:13.0	0:52:12.4	-7.2	-0.0	119.1	507.7	704.7	133.0
37	0:1:05.5	0:1:02.6	17.5	0.1	142.2	1492.2	3315.2	153.1
38	0:4:00.0	0:4:07.2	230.5	0.2	120.7	1223.2	2263.6	145.1
40	0:11:41.5	0:11:40.2	175.2	0.6	160.0	997.3	1520.1	139.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, GPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41	0:15:10.0	0:15:15.2	71.3	0.3	140.0	707.5	536.0	131.0
42	0:10:34.0	0:10:33.2	100.2	0.4	152.0	705.5	522.2	130.1
43	0:23:0.5	0:23:0.1	-20.0	-0.0	147.4	203.5	446.2	132.0
44	0:28:40.0	0:28:30.7	55.0	0.0	152.0	228.0	322.0	131.3
47	0:43:57.5	0:43:55.7	251.3	1.1	147.3	1008.0	2052.2	147.7
48	0:47:33.0	0:47:31.0	320.0	1.4	152.0	901.5	1104.5	123.0
49	0:51:38.0	0:51:31.4	203.0	0.7	152.0	471.1	675.1	135.7
50	0:54:22.0	0:54:22.0	77.2	0.3	136.0	422.0	527.2	134.1
51	0:57:35.0	0:57:34.0	204.7	1.1	152.0	525.0	504.1	144.5
52	10:0:30.5	10:0:30.1	120.5	0.7	104.4	477.3	510.2	110.7

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O PPH	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1 F-U	5:52:55.0	5:52:53.0	313.0	1.1	152.7	1002.0	1571.4	140.1
2 F-U	5:53:12.0	5:53:17.3	295.2	1.1	153.2	1044.3	1225.1	148.4
3 F-U	5:53:12.0	5:53:10.8	375.2	1.4	157.2	1002.4	1322.0	130.3
4 F-U	6:02:28.5	6:02:25.0	-124.5	-0.5	150.7	1002.3	1000.5	91.2
5 F-U	6:05:41.5	6:05:40.1	214.2	0.8	160.0	1013.5	1000.0	141.0
6 DEP	6:10:05.0	6:10:04.4	2410.2	10.8	70.0	654.2	688.7	101.1
7 DEP	6:22:05.5	6:22:04.9	2150.3	10.8	73.3	699.1	707.2	92.7
8 DEP	6:26:03.5	6:26:01.8	2222.3	10.0	72.9	726.8	735.5	97.2
9 DEP	6:31:07.0	6:31:06.3	2150.0	10.5	70.0	770.8	785.0	101.3
10 DEP	6:35:54.5	6:35:53.0	2317.7	17.0	72.1	712.2	720.8	92.5
11 DEP	6:44:20.0	6:44:22.3	1070.5	10.2	67.4	749.3	780.3	90.7
12 DEP	6:48:04.1	6:48:03.1	2092.3	10.0	72.7	720.4	740.3	90.3
13 ARR	6:54:07.0	6:54:06.7	-975.8	-0.3	81.3	354.7	358.7	113.5
14 ARR	6:58:51.5	6:58:51.2	-873.2	-4.8	70.0	342.0	372.2	113.2
15 ARR	7:03:19.5	7:03:19.2	-818.2	-0.2	74.4	337.3	363.4	111.0
16 ARR	7:07:40.0	7:07:48.7	-940.5	-7.0	75.8	347.4	380.6	105.5
17 ARR	7:12:05.5	7:12:05.2	-833.5	-6.1	78.0	355.5	382.2	113.7
18 ARR	7:16:22.0	7:16:21.7	-817.5	-6.0	77.2	338.2	355.3	107.5
19 ARR	7:20:32.0	7:20:31.7	-802.3	-0.4	78.0	346.5	360.3	110.2

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
RRR	00:00:00.0	00:00:00.0	-743.0	-5.1	81.5	343.3	384.5	118.8
RRR	00:00:14.0	00:00:14.0	-862.0	-6.4	79.7	337.3	388.3	118.0
RRR	00:00:17.0	00:00:17.0	-841.7	-1.3	144.1	540.0	991.1	148.3
RRR	00:00:21.0	00:00:21.0	-863.7	0.8	141.1	513.0	838.7	128.2
RRR	00:00:23.0	00:00:23.0	-858.0	1.7	108.0	497.4	793.3	141.2
RRR	00:00:28.0	00:00:28.0	-860.0	0.7	188.3	540.8	748.0	133.5
RRR	00:00:31.0	00:00:31.0	-105.5	-0.5	128.8	496.2	538.4	100.7
RRR	00:00:35.0	00:00:35.0	-108.7	-0.0	123.4	519.7	604.1	131.5
RRR	00:00:38.0	00:00:38.0	-108.8	-0.8	143.4	484.8	1032.7	152.0
RRR	00:00:41.0	00:00:41.0	-118.3	-0.1	138.4	478.8	768.0	141.7
RRR	00:00:45.0	00:00:45.0	-110.8	0.3	110.8	489.8	817.6	143.3
RRR	00:00:48.0	00:00:48.0	-110.8	0.0	152.3	512.1	837.3	142.3
RRR	00:00:52.0	00:00:52.0	-110.8	0.2	127.5	494.8	830.8	120.3
RRR	00:00:55.0	00:00:55.0	-110.8	-1.0	120.0	490.0	881.5	100.8
RRR	00:01:01.0	00:01:01.0	-110.8	0.2	148.2	1400.3	2183.4	136.8
RRR	00:01:05.0	00:01:05.0	-110.8	0.0	160.5	1520.5	3042.2	150.0
RRR	00:01:08.0	00:01:08.0	-110.8	-0.5	145.3	1021.0	1031.8	98.3
RRR	00:01:11.0	00:01:11.0	-110.8	-0.1	150.0	523.5	1012.0	101.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-2 (CONT)

TEST DATE: JUNE 22, 1980
 UH60A
 MIC # 2 CENTERLINE WEST, 4 FT
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 180
 JAN 89, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 F-E	0:15:13.0	0:15:12.0	20.3	0.1	142.2	707.4	1102.0	142.5
42 F-E	0:19:27.5	0:19:26.0	222.2	0.2	157.2	707.7	712.2	90.2
43 F-E	0:23:7.5	0:23:7.2	-102.7	-0.4	147.0	205.5	301.0	101.2
44 F-E	0:26:42.5	0:26:42.2	-53.3	-0.2	152.2	220.7	295.8	101.7
47 F-E	0:44:1.5	0:44:0.5	420.0	1.0	142.5	1024.2	1025.0	92.1
48 F-E	0:47:36.0	0:47:35.1	343.3	1.2	152.8	1002.1	1050.7	102.5
49 F-E	0:51:31.5	0:51:31.1	124.2	0.7	152.5	424.6	471.2	90.2
50 F-E	0:54:25.0	0:54:24.0	274.2	0.0	155.7	421.0	452.3	111.5
51 F-E	0:57:30.5	0:57:29.0	273.3	1.0	152.0	514.2	1702.1	102.4
52 F-E	10:0:33.5	10:0:33.1	97.0	0.5	104.2	424.4	504.2	102.3

REC. TIME TIME PNLTH WAS RECORDED, RAD. TIME TIME PNLTH WAS RADIATED
 R/C AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG CLIMB OR DESCENT ANGLE
 GS GROUND SPEED, CPA CLOSEST POINT OF APPROACH
 SR SLANT RANGE TO AIRCRAFT AT TIME PNLTH WAS RADIATED
 AR-ANG ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 01-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FRA-TEE 120

UH60A

JAN 29, 1981

MIC 3 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1 T-TU	5:52:51.5	5:52:50.1	-155.8	-0.5	160.5	927.4	1540.3	140.1
2 T-TU	5:56:24.0	5:56:22.0	-169.0	0.4	152.0	1053.8	1600.1	138.8
3 T-TU	5:59:55.5	5:59:53.7	-223.5	1.2	156.7	925.3	2014.5	150.7
4 T-TU	6:02:30.0	6:02:29.1	-220.5	-0.8	151.0	907.7	1600.2	97.4
5 T-TU	6:05:30.0	6:05:28.8	-130.2	0.5	159.9	1001.0	1500.8	140.2
6 DEP	6:17:00.0	6:17:00.7	2074.2	12.7	77.0	353.3	301.3	84.5
7 DEP	6:21:58.0	6:21:57.6	2342.5	12.2	70.3	400.1	400.4	97.3
8 DEP	6:25:55.5	6:25:55.1	2400.7	10.1	71.2	418.1	418.6	87.2
9 DEP	6:29:55.0	6:29:55.0	2500.3	20.3	68.7	450.7	477.0	100.8
10 DEP	6:35:40.0	6:35:47.8	2312.0	17.0	70.0	412.0	414.3	83.0
11 DEP	6:44:20.5	6:44:20.1	2300.2	20.1	64.0	432.8	445.3	103.7
12 DEP	6:47:50.0	6:47:55.6	2457.5	10.5	68.7	428.7	434.6	99.4
13 ARR	6:53:50.0	6:53:53.5	-628.2	-4.2	84.3	450.8	543.3	122.4
14 ARR	6:58:44.0	6:58:43.8	-955.2	-2.7	70.2	438.3	482.0	118.5
15 ARR	7:03:12.0	7:03:11.0	-701.2	-5.2	76.5	443.0	481.7	109.4
16 ARR	7:07:41.5	7:07:41.1	-672.3	-4.0	75.0	455.0	483.6	100.7
17 ARR	7:11:58.0	7:11:57.6	-848.0	-6.0	70.0	453.0	494.5	112.2
18 ARR	7:16:15.0	7:16:14.6	-893.0	-6.3	70.4	450.3	457.8	100.2
19 ARR	7:20:24.5	7:20:24.1	-881.2	-6.0	81.2	461.7	455.3	111.2

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-3 (CONT)

TEST DATE: JUNE 22, 1980 POSITION DATA
 UH60A HELICOPTER NOISE MEASUREMENT PROGRAM FAA/AEE 120
 MIC # 3 CENTERLINE EAST, 4 FT JAN 29, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
23 ARR	8:09:24.0	8:09:23.8	-259.0	-5.7	85.7	448.2	482.8	105.1
24 ARR	8:14:21.0	8:14:20.5	-213.7	-5.8	82.1	443.1	588.8	122.8
25 TTTT	8:18:4.5	8:18:4.0	31.3	0.1	143.2	581.8	586.1	108.8
26 TTTT	8:21:34.5	8:21:33.0	152.0	0.0	142.1	409.4	602.5	133.9
27 TTTT	8:24:7.5	8:24:7.0	41.2	0.2	100.5	490.0	530.8	112.1
28 TTTT	8:28:36.0	8:28:35.4	351.7	1.2	182.0	524.7	700.1	132.3
29 TTTT	8:29:20.0	8:29:19.3	-135.3	-0.6	122.8	489.1	737.8	138.5
30 TTTT	8:31:45.0	8:31:44.4	179.8	0.8	122.0	518.2	724.3	134.5
31 TTTT	8:35:10.0	8:35:10.2	122.8	0.5	141.5	401.5	930.2	147.7
32 TTTT	8:38:21.5	8:38:20.0	-210.8	-1.2	136.1	480.1	725.5	132.6
33 TTTT	8:41:58.0	8:41:57.0	-231.2	-1.2	111.6	475.1	487.0	103.1
34 TTTT	8:45:11.0	8:45:10.1	213.7	0.9	154.5	403.1	1008.0	150.7
35 TTTT	8:48:37.0	8:48:36.5	14.0	0.1	125.7	406.8	534.1	111.6
36 TTTT	8:52:10.0	8:52:0.3	120.5	0.6	110.6	506.8	783.8	140.3
37 TTTT	9:1:22.5	9:1:25.2	61.3	0.2	148.4	1503.8	3031.9	150.3
38 TTTT	9:4:55.5	9:4:52.4	30.7	0.1	164.8	1521.7	3403.2	154.2
39 TTTT	9:8:28.5	9:8:26.6	-98.5	-0.4	144.5	1015.1	2108.9	151.2
40 TTTT	9:11:30.5	9:11:38.1	144.2	0.5	152.8	991.5	1555.0	140.4

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-3 (CONT)

TEST DATE: JUNE 22, 1980
 UH80A
 MIC # 3 CENTERLINE EAST, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 JAN 80, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41	0:15:20.0	0:15:19.4	83.7	0.3	148.0	700.7	711.0	94.8
42	0:19:30.0	0:19:28.7	82.5	0.2	153.4	700.8	1478.7	151.7
43	0:23:00.0	0:23:00.1	-144.5	-0.8	147.3	200.0	1011.3	100.0
44	0:28:30.0	0:28:30.8	-110.7	-0.1	155.4	204.4	941.0	100.0
47	0:43:00.0	0:43:00.3	318.5	1.2	148.7	1110.5	1030.0	144.7
48	0:47:20.0	0:47:20.3	80.2	0.3	154.0	071.4	1030.0	140.0
49	0:51:34.0	0:51:33.4	210.3	0.8	155.0	470.0	045.1	131.0
50	0:54:20.0	0:54:19.0	27.8	0.1	120.0	415.5	051.1	140.2
51	0:57:37.0	0:57:30.8	325.0	1.2	154.7	034.5	077.7	148.5
52	10:00:00.0	10:00:00.4	00.7	0.5	104.8	478.2	700.7	137.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1 F-U	05:55:53.0	05:55:51.5	48.8	0.2	150.2	1050.0	1557.0	140.0
2 F-U	05:56:00.0	05:56:00.0	130.8	0.5	152.5	1035.7	1588.6	94.2
3 F-U	05:56:12.5	05:56:11.5	352.2	1.2	156.3	1118.4	1130.3	90.0
4 F-U	06:00:00.0	06:00:00.0	-180.7	-0.7	150.0	1053.0	1053.0	90.4
5 F-U	06:00:30.0	06:00:30.1	130.2	0.5	150.0	1052.1	2105.3	150.0
6 DEFP	06:01:18.1	06:01:18.0	2500.3	18.0	77.0	895.3	707.1	100.5
7 DEFP	06:02:00.1	06:02:00.3	2200.3	17.2	70.5	780.1	751.0	104.1
8 DEFP	06:02:31.4	06:02:31.3	2277.3	17.4	71.5	748.0	775.0	74.5
9 DEFP	06:03:11.4	06:03:11.3	2200.0	18.3	68.6	783.0	783.1	80.2
10 DEFP	06:03:53.5	06:03:53.2	2303.7	17.4	72.5	741.1	778.2	72.2
11 DEFP	06:04:47.0	06:04:47.3	2332.5	19.0	65.5	770.8	771.0	88.0
12 DEFP	06:05:30.0	06:05:30.3	2380.8	18.7	60.3	788.8	793.2	104.5
13 ARR	06:06:48.0	06:06:48.0	1000.0	-10.0	80.0	800.7	717.0	122.0
14 ARR	06:07:31.5	06:07:31.5	1043.5	-10.3	75.6	820.7	846.1	108.1
15 ARR	06:08:14.4	06:08:14.0	1041.2	-10.2	76.7	832.2	887.7	108.2
16 ARR	06:09:11.5	06:09:10.0	1020.7	-10.0	72.8	865.8	843.0	109.9
17 ARR	06:10:17.5	06:10:16.0	1006.3	-10.4	70.0	814.7	881.5	111.7
18 ARR	06:11:00.0	06:11:00.4	1000.2	-10.0	70.7	806.4	830.0	108.2

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED.
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT. O/D-ANG: CLIMB OR DESCENT ANGLE.
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH.
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED.
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE.

TABLE C1-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UH60A

FAA/AEE 120
JAN 29, 1981

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
03 ARR	01 00 25.5	01 00 25.0	-071.7	-6.8	82.4	648.0	712.8	114.4
04 ARR	01 14 25.0	01 14 25.5	-038.3	-5.8	80.6	583.8	601.6	104.8
05 ARR	01 18 25.5	01 18 1.8	158.5	0.0	143.1	713.3	736.3	104.3
06 ARR	01 21 38.5	01 21 37.0	518.8	0.0	141.9	682.7	682.7	90.3
07 ARR	01 24 34.5	01 24 3.8	300.8	0.0	108.9	680.3	748.3	112.0
08 ARR	01 28 30.0	01 28 38.4	255.2	0.0	123.3	701.7	717.7	102.1
09 ARR	01 30 30.0	01 29 10.4	-135.3	-0.6	128.8	706.0	703.0	95.2
10 ARR	01 31 44.5	01 31 43.2	151.5	0.7	122.8	680.1	1420.0	151.0
11 ARR	01 35 14.0	01 35 12.4	122.8	0.5	141.5	634.1	672.8	100.5
12 ARR	01 38 10.5	01 38 05.0	122.8	1.1	136.4	616.8	620.3	96.3
13 ARR	01 41 55.0	01 41 55.0	-122.8	1.1	110.1	708.8	708.8	93.0
14 ARR	01 45 15.5	01 45 14.0	255.2	0.0	152.3	755.5	748.5	100.7
15 ARR	01 48 34.0	01 48 34.0	-152.3	0.0	128.7	708.0	708.0	95.0
16 ARR	01 51 55.5	01 51 55.5	-152.3	0.0	119.6	746.7	740.0	91.1
17 ARR	01 54 20.0	01 54 20.0	47.7	0.0	148.8	1574.1	2601.6	144.2
18 ARR	01 57 30.0	01 57 30.0	150.5	0.0	150.5	1572.0	2587.0	142.1
19 ARR	01 59 30.0	01 59 30.0	160.8	0.0	144.5	1122.5	1124.7	92.7
20 ARR	01 11 30.0	01 11 30.0	160.8	0.0	160.8	1120.3	3000.0	158.7

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980 FAA/AEE 120
UH80A JAN 20, 1981
MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 F-E	9:15:15.0	9:15:13.0	14.6	0.1	148.8	901.6	1300.6	136.1
42 F-U	9:19:38.0	9:19:35.2	85.7	0.3	157.9	881.2	883.1	93.8
43 F-E	9:23:09.0	9:23:08.5	41.3	0.8	147.1	571.8	625.1	113.8
44 F-U	9:28:40.5	9:28:40.0	42.2	0.2	157.4	604.7	625.8	104.8

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	5:52:56.5	5:52:55.5	359.2	1.3	158.1	1151.6	1171.5	106.7
11	5:53:00.0	5:53:00.4	171.2	0.6	158.0	1220.2	1759.2	135.7
12	5:53:10.5	5:53:11.5	352.2	1.3	158.3	1100.0	1125.2	99.7
13	5:53:24.0	5:53:22.4	-38.7	-0.1	150.0	1183.2	1788.7	138.0
14	5:53:43.5	5:53:42.4	165.5	0.6	150.0	1185.2	1190.9	95.8
15	5:53:55.5	5:53:58.8	2624.7	18.8	77.8	723.6	837.0	120.2
16	5:54:00.0	5:54:00.3	2321.3	17.9	70.9	753.3	824.7	113.2
17	5:54:05.5	5:54:04.7	2490.7	19.1	71.2	771.2	922.6	123.3
18	5:54:11.0	5:54:09.2	2480.7	19.8	68.0	805.8	901.9	116.7
19	5:54:16.5	5:54:14.7	2352.3	18.1	70.9	752.0	870.4	119.4
20	5:54:22.0	5:54:20.3	2316.3	19.7	63.7	778.5	847.0	113.2
21	5:54:27.5	5:54:25.7	2462.0	19.5	68.9	770.2	875.2	118.4
22	5:54:33.0	5:54:30.9	-880.7	-6.0	82.6	654.5	655.7	83.5
23	5:54:38.5	5:54:36.9	-800.2	-5.7	80.1	637.6	647.6	100.1
24	5:54:44.0	5:54:41.0	-847.2	-6.3	75.4	634.2	640.4	98.0
25	5:54:49.5	5:54:45.4	-853.2	-6.3	75.2	641.6	641.7	91.0
26	5:54:55.0	5:54:50.3	-836.0	-5.9	78.4	670.4	736.8	114.5
27	5:55:00.5	5:54:58.4	-864.2	-6.2	73.6	645.1	646.5	89.8
28	5:55:06.0	5:55:02.9	-948.7	-6.7	79.4	674.5	674.8	91.7

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-E (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120
JAN 29, 1981

UH60A

MIC 8 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	GPA FT	SR FT	AR-ANG DEG
23 ARR	01:08:25.0	01:08:27.4	-304.0	-0.1	82.1	841.7	848.2	98.8
24 ARR	01:14:27.0	01:14:28.4	-304.2	-0.4	79.9	875.3	878.2	92.0
25 FTL	01:18:33.0	01:18:33.3	88.5	0.4	143.3	776.3	778.7	94.5
26 FTL	01:21:38.0	01:21:37.3	214.2	0.0	140.6	787.0	743.6	101.9
27 FTL	01:24:35.5	01:24:40.0	7.8	0.0	108.1	710.4	780.7	99.7
28 FTL	01:28:38.0	01:28:37.8	220.7	1.0	104.1	740.7	811.3	112.5
29 FTL	01:29:19.0	01:29:18.3	-102.5	-0.7	128.2	832.7	748.5	111.0
30 FTL	01:31:40.0	01:31:42.3	31.8	0.1	128.7	738.7	783.6	104.7
31 FTL	01:35:18.5	01:35:17.8	84.0	0.3	141.8	745.1	847.0	112.4
32 FTL	01:38:25.0	01:38:24.3	-159.3	-0.2	130.7	745.8	778.0	108.0
33 FTL	01:41:55.0	01:41:54.4	-188.2	-0.2	110.3	876.7	787.2	108.0
34 FTL	01:45:13.5	01:45:12.8	433.3	1.8	152.8	880.3	884.0	138.3
35 FTL	01:48:35.0	01:48:34.0	21.2	0.1	128.2	859.8	787.4	105.8
36 FTL	01:52:14.5	01:52:13.0	-22.7	-0.4	120.0	871.5	897.7	105.7
37 FTL	01:55:30.5	01:55:28.0	52.9	0.2	148.5	1592.8	2147.3	132.8
38 FTL	01:57:57.0	01:57:53.8	-101.3	-0.3	164.0	1623.7	3838.0	153.5
39 FTL	01:58:20.5	01:58:28.2	-100.2	-0.5	144.5	1135.0	1500.7	138.0
40 FTL	01:11:40.5	01:11:38.0	254.2	0.9	159.3	1193.7	1280.9	143.8

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, GPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 F-E	0:15:17.5	0:15:18.7	32.7	0.1	150.5	850.2	878.8	104.8
42 F-U	0:19:38.0	0:19:35.3	85.7	0.3	157.9	838.8	840.0	93.4
43 F-E	0:23:10.0	0:23:0.5	103.2	0.4	148.8	574.1	574.1	80.8
44 F-U	0:28:39.5	0:28:38.9	59.8	0.2	158.1	532.0	781.8	132.5
47 F-E	0:44:1.0	0:43:59.7	385.2	1.4	148.1	1257.8	1454.4	120.2
48 F-U	0:47:22.5	0:47:22.4	90.2	0.3	155.2	1142.8	2420.2	151.9
49 F-E	0:51:33.5	0:51:32.9	230.0	0.0	158.3	695.4	700.4	96.0
50 F-U	0:54:23.0	0:54:22.9	107.2	0.4	165.8	682.8	758.3	113.7
51 F-E	0:57:37.5	0:57:36.9	330.3	1.2	154.6	732.9	734.3	93.5
52 F-U	10:0:30.5	10:0:29.8	120.5	0.7	104.4	710.2	742.2	108.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1 F-LU	5:52:57.0	5:52:55.8	362.0	1.3	158.2	1302.5	1306.5	94.5
2 F-FU	5:56:19.0	5:56:18.7	295.2	1.1	153.3	1226.3	2578.0	150.0
3 F-FU	5:59:18.0	5:59:18.7	378.2	1.4	157.2	1370.5	1410.2	105.1
4 F-FU	6:02:27.0	6:02:25.8	-128.0	-0.5	151.0	1268.3	1345.7	100.8
5 F-FU	6:05:44.0	6:05:42.9	183.0	0.8	159.9	1264.4	1264.4	89.8
8 DEPP	6:18:55.5	6:18:45.5	2424.7	18.9	78.9	1044.0	1106.3	70.7
9 DEPP	6:22:22.5	6:22:16.5	2251.5	17.4	71.1	1055.9	1068.5	91.8
10 DEPP	6:25:52.5	6:25:57.5	2388.2	18.4	71.0	1070.9	1089.4	97.0
11 DEPP	6:31:30.0	6:31:28.0	2301.5	19.2	67.8	1105.3	1119.4	99.1
12 DEPP	6:35:51.5	6:35:50.5	2383.9	17.7	71.7	1078.0	1078.5	91.8
14 DEPP	6:44:25.0	6:44:24.0	2245.2	18.9	64.7	1101.5	1107.4	95.9
15 DEPP	6:47:59.5	6:47:58.5	2340.2	18.4	69.3	1099.7	1112.0	98.5
16 ARRR	6:54:33.5	6:54:28.5	-808.6	-8.1	82.0	959.9	1020.1	101.4
17 ARRR	6:58:45.5	6:58:44.5	-852.7	-8.7	80.8	927.8	1141.6	120.1
18 ARRR	7:03:14.5	7:03:13.5	-834.7	-8.2	75.8	1001.1	1080.4	109.2
19 ARRR	7:07:43.5	7:07:42.5	-806.5	-5.0	77.1	1009.4	1081.6	111.0
20 ARRR	7:12:00.5	7:11:59.5	-823.9	-5.9	72.7	976.9	1055.2	112.2
21 ARRR	7:16:16.5	7:16:15.5	-944.2	-6.7	70.5	992.7	1072.1	113.0
22 ARRR	7:20:26.5	7:20:25.5	-928.7	-6.5	80.2	967.4	1070.0	115.3

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 20, 1981

MIC # 8 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
23	0:0:26.0	0:0:25.1	-989.8	-6.8	81.8	991.8	1072.4	112.4
24	0:0:24.0	0:0:23.1	-798.9	-5.8	81.0	988.0	1063.0	118.0
25	0:0:18.1	0:0:17.50.0	311.0	1.8	143.2	1045.1	1232.0	122.0
26	0:0:21.38.0	0:0:21.37.1	214.2	0.9	140.8	1030.7	1050.5	101.2
27	0:0:24.5.5	0:0:24.4.8	7.8	0.0	108.1	1042.3	1053.0	98.2
28	0:0:28.38.5	0:0:28.37.5	280.7	1.0	104.1	1042.0	1113.0	110.7
29	0:0:20.18.5	0:0:20.15.2	-24.2	-0.4	122.4	1057.0	1434.0	132.5
30	0:0:31.50.0	0:0:31.49.1	-2.7	-0.0	123.4	1033.5	1034.0	81.9
31	0:0:35.17.0	0:0:35.15.0	17.5	0.1	143.7	978.8	1227.8	130.5
32	0:0:38.22.0	0:0:38.22.2	22.2	0.3	138.5	982.8	982.8	90.8
33	0:0:41.55.5	0:0:41.55.6	-267.0	-1.4	119.5	1070.0	1071.1	91.0
34	0:0:45.15.5	0:0:45.14.5	250.0	0.0	152.3	1005.7	1112.5	101.8
35	0:0:48.38.0	0:0:48.35.1	32.0	0.2	128.7	1084.5	1084.5	91.3
36	0:0:52.15.0	0:0:52.14.0	-102.2	-0.5	119.4	1103.0	1113.2	97.7
37	0:0:1.22.0	0:0:1.25.5	47.8	0.2	148.2	1758.8	2217.5	141.4
38	0:0:5.22.0	0:0:4.59.0	124.7	0.4	121.7	1747.0	2350.7	122.2
39	0:0:8.22.5	0:0:8.10.5	139.7	0.5	143.0	1370.0	3383.3	156.1
40	0:0:11.45.0	0:0:11.43.8	102.2	0.4	150.7	1375.0	1327.0	97.1

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-6 (CONT)

TEST DATE: JUNE 22, 1980
UH80A

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
JAN 29, 1981

MIC 3 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 F-E	0:15:17.0	0:15:18.0	58.7	0.2	140.7	1185.3	1284.8	110.4
42 F-E	0:19:38.0	0:19:34.0	85.7	0.3	157.0	1197.4	1283.6	95.2
43 F-E	0:23:00.0	0:23:08.1	41.3	0.2	147.1	1074.9	1034.2	109.5
44 F-E	0:28:42.0	0:28:41.1	19.2	0.1	152.4	1013.5	1021.7	82.2
47 F-E	0:43:50.5	0:43:57.0	303.7	1.2	148.0	1350.8	1797.3	131.3
48 F-U	0:47:35.5	0:47:34.4	400.5	1.4	158.2	1302.7	1303.0	91.4
49 F-U	0:51:31.5	0:51:30.4	184.8	0.7	150.5	1025.4	1277.9	122.6
50 F-U	0:54:23.0	0:54:22.1	107.2	0.4	185.8	985.0	1043.8	112.4
51 F-U	0:57:35.5	0:57:34.4	315.2	1.1	155.3	1052.2	1258.2	123.1
52 F-U	10:00:30.5	10:00:29.8	120.5	0.7	104.4	1014.1	1050.3	105.1

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC #10 CENTERLINE CENTER, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	5:52:53.5	5:52:52.2	118.7	0.4	180.0	1001.6	1402.1	135.0
2	5:53:28.0	5:53:25.1	138.5	0.5	182.5	1054.1	1052.2	83.8
3	5:53:19.0	5:53:18.8	420.0	1.0	156.1	1002.2	1342.9	131.7
4	6:02:28.0	6:02:27.1	-178.0	-0.7	150.0	1010.3	1010.6	87.8
5	6:05:40.5	6:05:39.3	140.5	0.5	160.5	1010.8	1407.4	124.1
8	6:18:4.0	6:18:3.5	2401.5	12.9	78.2	515.2	501.0	66.7
9	6:22:3.0	6:22:2.5	2229.7	17.1	71.5	521.2	504.6	24.3
10	6:25:53.5	6:25:50.0	2359.2	18.1	71.1	521.2	502.2	27.3
11	6:31:2.5	6:31:1.0	2443.3	19.6	67.0	527.0	505.2	102.8
12	6:35:50.5	6:35:50.0	2379.8	18.1	71.2	527.0	503.5	102.8
14	6:44:24.0	6:44:23.4	2275.5	19.1	64.7	602.2	632.4	107.8
15	6:47:50.0	6:47:52.5	2380.8	18.7	69.3	594.3	625.5	102.2
16	6:54:58.0	6:54:4.4	-1003.3	-0.2	82.2	413.7	415.4	81.4
17	6:58:47.5	6:58:47.1	-843.7	-0.3	70.2	385.1	443.8	110.8
18	7:03:16.5	7:03:16.0	-847.8	-0.3	75.4	393.5	395.7	97.3
19	7:07:45.0	7:07:44.0	-844.5	-0.2	76.3	402.5	427.8	107.3
20	7:12:12.0	7:12:1.6	-817.7	-0.3	79.0	411.2	431.7	107.6
21	7:18:18.0	7:18:17.0	-825.7	-0.3	78.7	397.7	427.0	111.6
22	7:20:28.5	7:20:28.1	-932.5	-0.6	70.8	402.1	428.1	106.7

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-7 (CONT)

TEST DATE: JUNE 22, 1980		HELICOPTER NOISE MEASUREMENT PROGRAM				FAA/AEE 120 JAN 29, 1981			
UH60A									
MIC #16 CENTERLINE CENTER, GROUND									

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG	
23 ARR	0:0:27.0	0:0:22.8	-940.0	-0.4	82.0	382.5	438.4	115.0	
24 ARR	0:14:25.5	0:14:25.1	-805.2	-5.8	80.0	399.5	448.8	117.1	
25 F-I-E	0:18:1.5	0:18:0.0	280.5	1.1	143.1	584.2	684.8	125.7	
26 F-I-E	0:21:38.0	0:21:35.0	158.7	0.8	141.0	569.7	618.7	141.5	
27 F-I-E	0:24:5.0	0:24:4.5	24.2	0.1	108.8	501.0	580.8	108.7	
28 F-I-E	0:28:32.0	0:28:37.4	328.7	1.1	103.5	538.0	683.2	125.1	
29 F-I-E	0:29:18.0	0:29:17.4	-137.2	-0.6	128.6	498.0	605.0	134.4	
30 F-I-E	0:31:40.0	0:31:48.5	31.8	0.1	122.7	521.8	543.0	108.4	
31 F-I-E	0:35:17.5	0:35:16.9	11.3	0.0	148.0	490.7	781.3	141.7	
32 F-I-E	0:38:24.0	0:38:23.4	-175.0	-0.7	138.3	479.0	646.0	138.2	
33 F-I-E	0:41:55.0	0:41:54.5	-166.2	-0.9	110.3	402.1	524.1	110.1	
34 F-I-E	0:45:13.5	0:45:12.8	433.3	1.6	152.6	513.7	850.5	142.8	
35 F-I-E	0:48:33.5	0:48:32.0	73.7	0.3	128.6	490.0	603.2	134.0	
36 F-I-E	0:52:14.5	0:52:14.0	-82.7	-0.4	120.0	511.7	535.1	107.1	
37 F-I-E	0:1:0:25.5	0:1:0:22.8	17.5	0.1	148.2	1502.8	3317.0	153.1	
38 F-I-E	0:1:0:5.0	0:1:0:2.5	238.8	0.8	160.5	1527.8	2520.8	142.7	
39 F-I-E	0:1:0:28.0	0:1:0:26.5	-124.2	-0.3	144.8	1020.4	1731.7	143.9	
40 F-I-E	0:11:40.5	0:11:38.0	254.2	0.0	150.3	1001.3	1782.0	145.0	

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-7 (CONT)

TEST DATE: JUNE 22, 1980
 UH60A
 MIC #10 CENTERLINE CENTER, GROUND
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 180
 JAN 29, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 F-E	0:15:16.5	0:15:16.7	85.7	0.2	149.0	711.5	855.2	123.7
42 F-E	0:15:34.0	0:15:33.2	109.2	0.4	158.0	709.5	925.2	120.0
43 F-E	0:23:08.5	0:23:08.1	-8.8	-0.0	147.4	297.5	449.5	138.0
44 F-E	0:28:39.5	0:28:39.1	59.8	0.2	158.1	599.8	513.0	145.5
47 F-E	0:43:58.5	0:43:58.0	253.2	1.0	148.8	1102.0	1210.0	145.5
48 F-E	0:47:32.0	0:47:31.4	449.8	1.8	152.7	985.5	1291.0	129.0
49 F-E	0:51:37.5	0:51:36.6	247.5	0.0	155.5	475.1	1013.5	88.0
50 F-E	0:54:22.5	0:54:22.0	77.2	0.3	155.0	422.0	502.0	134.0
51 F-E	0:57:38.0	0:57:35.4	319.2	1.2	155.1	529.0	674.5	128.3
52 F-E	10:01:30.5	10:01:30.1	120.5	0.7	104.4	421.3	514.0	110.5

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UH80A

FAA/AKE 120
JAN 22, 1981

MIC 81H CENTERLINE CENTER, 33FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1 F-L	5:52:52.5	5:52:51.0	-17.0	-0.1	150.2	982.7	1740.7	148.2
2 F-L	5:53:23.0	5:53:21.8	-110.7	0.4	152.4	1021.0	1375.7	132.0
3 F-L	5:53:10.5	5:53:09.4	-131.5	1.8	152.1	969.2	1217.0	127.2
4 F-L	6:02:22.5	6:02:27.8	-186.7	-0.7	150.0	977.6	977.7	80.6
5 F-L	6:05:41.0	6:05:39.9	-170.7	0.6	150.2	978.2	1272.4	120.8
6 DEPT	6:12:02.5	6:12:01.1	-2508.9	17.6	78.9	423.0	424.3	87.6
7 DEPT	6:22:02.0	6:22:01.5	-2288.2	17.7	70.8	520.9	533.5	88.8
8 DEPT	6:25:52.5	6:25:52.0	-2382.2	12.4	71.0	550.3	559.5	100.4
9 DEPT	6:31:02.5	6:31:01.0	-2443.3	10.6	87.0	598.9	622.8	102.9
10 DEPT	6:35:50.5	6:35:50.0	-2370.8	12.1	71.8	537.7	554.7	104.2
11 DEPT	6:44:24.5	6:44:24.0	-2256.7	10.1	84.4	576.0	588.7	104.1
12 DEPT	6:47:50.5	6:47:50.0	-2340.3	12.4	60.3	583.1	580.6	104.1
13 ARR	6:54:55.5	6:54:55.2	-216.9	-2.3	21.7	380.0	404.4	70.4
14 ARR	6:58:48.0	6:58:47.7	-224.5	-2.8	20.2	352.2	372.5	111.5
15 ARR	7:03:18.5	7:03:18.2	-247.2	-2.3	75.4	380.0	383.2	82.8
16 ARR	7:07:45.0	7:07:44.7	-244.5	-2.2	78.3	375.7	394.3	107.7
17 ARR	7:12:02.0	7:12:01.7	-217.7	-2.8	70.0	378.0	368.4	108.0
18 ARR	7:16:18.0	7:16:17.7	-225.7	-2.9	72.7	384.8	394.3	112.3
19 ARR	7:20:22.5	7:20:22.2	-232.5	-2.6	70.6	375.6	392.2	106.7

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH80A

JAN 29, 1981

MIC #14 CENTERLINE CENTER, 33FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
23 ARR	8:09:27.5	8:09:27.2	-920.7	-0.3	82.5	359.7	375.8	100.8
24 ARR	8:14:26.0	8:14:25.7	-838.3	-5.2	80.8	387.0	387.0	108.8
25 TEE	8:18:22.5	8:18:22.0	158.5	0.8	143.1	531.3	548.2	104.3
26 TEE	8:21:38.0	8:21:35.3	158.7	0.6	141.0	478.7	703.1	143.1
27 TEE	8:24:15.0	8:24:14.6	24.2	0.1	102.2	488.0	498.2	100.3
28 TEE	8:26:38.0	8:26:37.4	328.7	1.1	163.5	508.1	655.3	129.8
29 TEE	8:29:17.5	8:29:16.8	-110.0	-0.5	122.7	403.9	788.1	148.7
30 TEE	8:31:48.5	8:31:48.8	51.7	0.2	122.0	488.0	552.8	117.8
31 TEE	8:35:17.5	8:35:18.8	11.8	0.0	142.0	458.2	787.7	143.4
32 TEE	8:38:24.5	8:38:24.0	-102.0	-0.4	138.8	448.7	535.2	123.4
33 TEE	8:41:53.0	8:41:52.3	28.3	0.4	110.2	450.1	738.2	141.5
34 TEE	8:45:13.5	8:45:12.8	433.3	1.6	152.8	486.8	827.8	144.5
35 TEE	8:48:34.0	8:48:33.5	72.8	0.3	126.8	450.0	588.2	127.3
36 TEE	8:52:14.5	8:52:14.1	-32.7	-0.4	120.0	478.0	502.2	107.8
37 TEE	9:01:31.0	9:01:29.0	41.2	0.2	142.4	1480.2	1048.4	131.0
38 TEE	9:04:00.5	9:04:57.7	230.5	0.3	160.7	1454.2	2642.6	145.6
39 TEE	9:08:27.5	9:08:25.5	-45.7	-0.2	144.7	587.4	1834.3	147.4
40 TEE	9:11:42.0	9:11:40.2	154.2	0.5	159.8	562.4	1376.7	135.3

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-8 (CONT)

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 TEST DATE: JUNE 22, 1980
 UH80A
 MIC 01H CENTERLINE CENTER, 32FT

FAA/AEE 120
 JAN 29, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 F-E	0:15:18.0	0:15:18.8	71.3	0.3	149.0	878.5	912.1	131.9
42 F-E	0:18:35.5	0:18:34.9	44.5	0.2	158.5	878.5	899.9	101.7
44 F-E	0:28:39.5	0:28:39.1	59.8	0.8	158.1	858.8	492.9	148.4
47 F-E	0:43:09.0	0:43:58.7	318.5	1.2	148.7	1070.1	1453.2	132.6
48 F-E	0:47:32.5	0:47:31.4	449.8	1.8	158.7	982.8	1351.9	130.3
49 F-E	0:51:32.0	0:51:31.4	203.0	0.7	158.2	442.1	651.7	137.3
50 F-E	0:54:22.5	0:54:22.0	77.2	0.3	158.0	393.4	583.1	135.7
51 F-E	0:57:35.5	0:57:34.8	315.2	1.1	155.3	408.6	756.4	139.0
52 F-E	10:00:39.0	10:00:29.5	122.0	0.7	104.1	448.4	524.2	121.2

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH80A

JAN 29, 1981

MIC #50 SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	5:52:58.5	5:52:55.5	359.2	1.3	158.1	1154.5	1174.9	100.7
2	5:52:58.5	5:52:52.8	100.0	0.4	158.0	1232.5	1308.9	118.1
3	5:50:12.5	5:50:11.5	352.2	1.3	158.3	1112.8	1128.9	99.7
4	5:50:23.5	5:50:21.8	15.8	0.1	150.0	1186.8	1225.1	141.0
5	5:50:43.0	5:50:41.0	161.7	0.3	150.8	1188.5	1218.9	102.3
6	5:51:03.0	5:51:01.4	252.3	17.7	78.1	788.3	788.3	95.3
7	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
8	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
9	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
10	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
11	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
12	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
13	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
14	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
15	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
16	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
17	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
18	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
19	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
20	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
21	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
22	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
23	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
24	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
25	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
26	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
27	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
28	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
29	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
30	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
31	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
32	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
33	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
34	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
35	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
36	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
37	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
38	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
39	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
40	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
41	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
42	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
43	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
44	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
45	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
46	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
47	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
48	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
49	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
50	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
51	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
52	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
53	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
54	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
55	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
56	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
57	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
58	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
59	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
60	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
61	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
62	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
63	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
64	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
65	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
66	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
67	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
68	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
69	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
70	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
71	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
72	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
73	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
74	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
75	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
76	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
77	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
78	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
79	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
80	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
81	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
82	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
83	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
84	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
85	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
86	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
87	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
88	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
89	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
90	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
91	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
92	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
93	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
94	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
95	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
96	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
97	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
98	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
99	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0
100	5:51:03.0	5:51:00.3	233.1	17.0	70.0	781.1	828.8	113.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC #60 SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
000	00:00:00.0	00:00:00.0	-056.0	-5.0	82.0	644.1	644.0	90.0
001	00:00:01.0	00:00:01.0	-064.0	-6.4	79.0	677.6	678.5	93.0
002	00:00:02.0	00:00:02.0	-011.0	-1.2	143.2	779.1	970.1	128.0
003	00:00:03.0	00:00:03.0	-014.0	-0.0	140.6	730.4	748.3	101.0
004	00:00:04.0	00:00:04.0	-07.0	0.0	108.1	713.2	723.4	99.7
005	00:00:05.0	00:00:05.0	-088.7	-1.1	163.5	752.5	880.6	122.2
006	00:00:06.0	00:00:06.0	-140.0	-0.0	128.5	685.5	713.8	100.0
007	00:00:07.0	00:00:07.0	-01.0	0.1	122.7	741.5	766.8	104.8
008	00:00:08.0	00:00:08.0	-04.0	-0.3	141.6	747.7	840.2	118.3
009	00:00:09.0	00:00:09.0	-16.0	-0.1	136.4	747.7	754.8	97.0
010	00:00:10.0	00:00:10.0	-014.0	-1.1	110.1	670.6	680.2	90.6
011	00:00:11.0	00:00:11.0	-03.0	-1.6	152.6	689.9	980.0	130.2
012	00:00:12.0	00:00:12.0	-01.0	-0.1	126.2	692.7	710.6	102.0
013	00:00:13.0	00:00:13.0	-156.0	-0.7	119.6	674.6	674.6	89.1
014	00:00:14.0	00:00:14.0	-050.0	0.2	148.5	1584.0	2151.8	138.6
015	00:00:15.0	00:00:15.0	-164.7	0.6	161.8	1637.4	3465.0	152.0
016	00:00:16.0	00:00:16.0	-138.0	-0.6	144.8	1138.6	1415.4	126.4
017	00:00:17.0	00:00:17.0	-090.0	0.8	159.0	1107.3	1330.6	127.2

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 89, 1981

MIC #50 SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 F-F	0:15:17.0	0:15:16.8	55.7	0.2	140.7	853.5	926.0	112.8
42 F-F	0:19:16.0	0:19:35.3	85.7	0.3	157.0	841.0	843.4	93.3
43 F-F	0:23:0.5	0:23:0.0	73.0	0.3	147.1	576.1	587.0	101.0
44 F-F	0:26:30.5	0:26:38.0	59.8	0.2	156.1	534.1	723.4	132.4
47 F-F	0:44:1.0	0:43:59.7	365.2	1.4	146.1	1261.1	1458.6	120.2
48 F-F	0:47:35.5	0:47:34.5	400.5	1.4	158.2	1146.2	1146.2	90.2
49 F-F	0:51:33.0	0:51:32.4	230.7	0.9	156.4	698.2	733.8	107.0
50 F-F	0:54:22.5	0:54:21.8	77.2	0.3	168.0	605.2	833.8	123.5
51 F-F	0:57:35.5	0:57:34.7	315.2	1.1	155.3	735.8	960.5	120.0
52 F-F	10:0:30.5	10:0:29.8	120.5	0.7	104.4	712.0	744.8	106.3

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C2 Summary

S76 June 23, 1980

Flight Path Tracking Data and Position Data

1. FLIGHT PATH TRACKING PLOTS

Event No.	Plot Fig. No.	Operation			
5	C2-1	1500 Ft.	LFO	140 kts	Target Speed
6	"	"		"	"
12	"	"		"	"
15	C2-2	300 Ft.	LFO	140 kts	Target Speed
16	"	"		"	"
7	C2-3	700 Ft.	LFO	140 kts	Target Speed
8	"	"		"	"
13	"	"		"	"
14	"	"		"	"
17	C2-4	500 Ft.	LFO	140 kts	Target Speed
18	"	"		140 kts	"
19	"	"		140 kts	"
20	"	"		140 kts	"
21	"	"		93 kts	"
22	"	"		93 kts	"
57	C2-5	500 Ft.	LFO	140 kts	Target Speed
58	"	"		"	"
59	"	"		"	"
60	"	"		"	"
61	"	"		93 kts	"
62	"	"		93 kts	"
63	C2-6	500 Ft.	LFO	93 kts	Target Speed
64	"	"		"	"
65	"	"		155 kts	"
66	"	"		"	"
67	"	"		"	"
68	"	"		"	"

Event No.	Plot Fig. No.	Operation			
33	C2-7	Takeoff			
35	"	"			
37	"	"			
39	"	"			
41	"	"			
43	C2-8	Takeoff			
53	"	"			
55	"	"			
49	C2-9	500 Ft.	LFO	124 kts	Target Speed
50	"	"		"	"
51	"	"		"	"
52	"	"		"	"
34	C2-10	Approach			
36	"	"			
40	"	"			
42	"	"			
44	"	"			
45	C2-11	1000 Ft.	LFO	140 kts	Target Speed
46	"	"		"	"
47	"	"		"	"
48	"	"		"	"
29	C2-12	500 Ft.	LFO	109 kts	Target Speed
30	"	"		"	"
31	"	"		"	"
32	"	"		"	"

2. POSITION DATA TABLES

Table Number

Microphone

C2-1	Mic. 1, Centerline Center 4 ft.
C2-2	Mic. 2, Centerline 150m West 4 ft.
C2-3	Mic. 3, Centerline 150m East 4 ft.
C2-4	Mic. 4, Sideline 164m North 4 ft.
C2-5	Mic. 5, Sideline 150m South 4 ft.
C2-6	Mic. 6, Sideline 284m North 4 ft.
C2-7	Mic. 1G, Centerline Center (Ground)
C2-8	Mic. 1H, Centerline Center 33 ft.
C2-9	Mic. 5G, Sideline 150m South (Ground)

[illegible]

9-11

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2

FLYOVER PROFILE

**THE
SPECIAL
AGENCY**

DISTANCE ALONG CENTERLINE

FIGURE C2-2

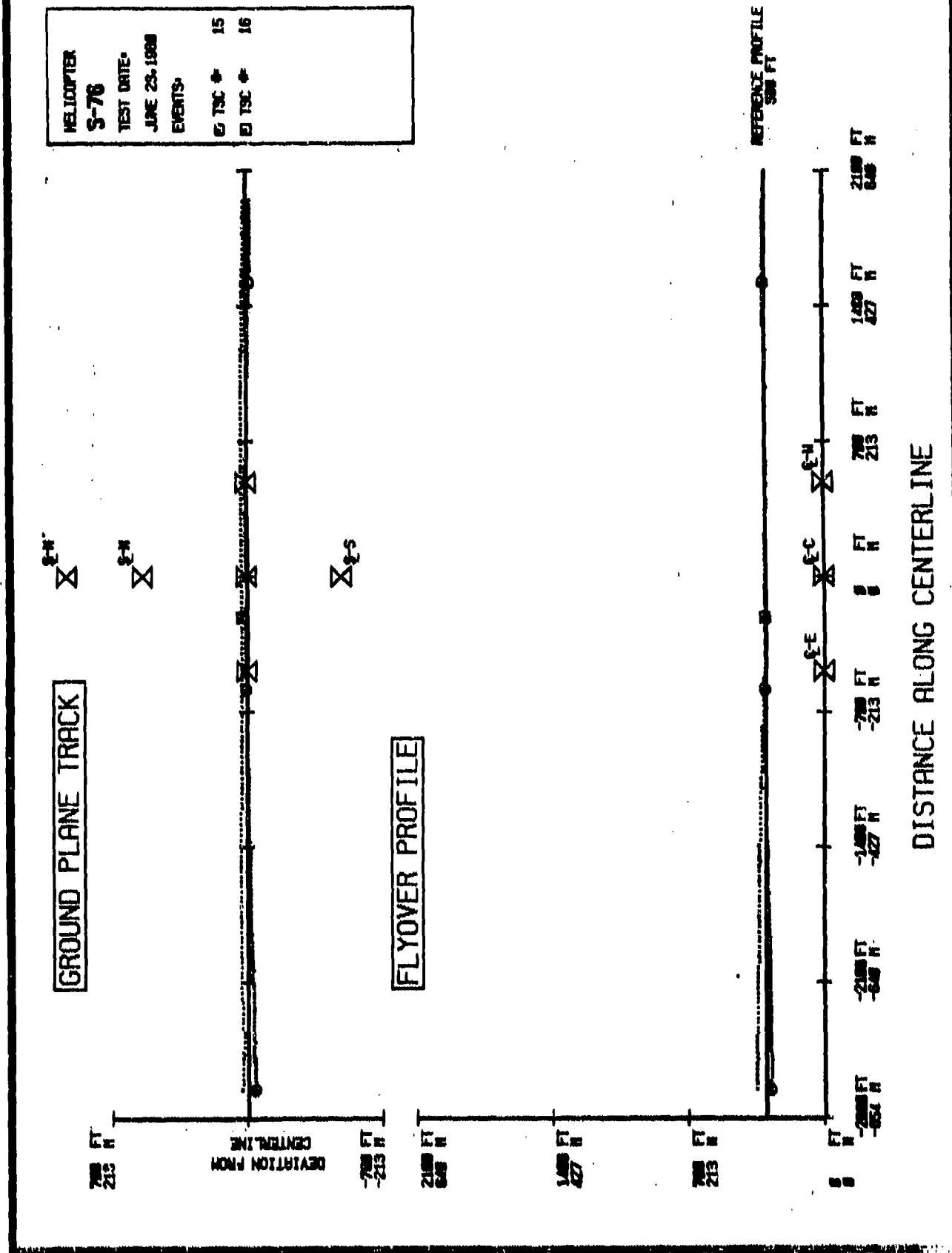


FIGURE C2-3

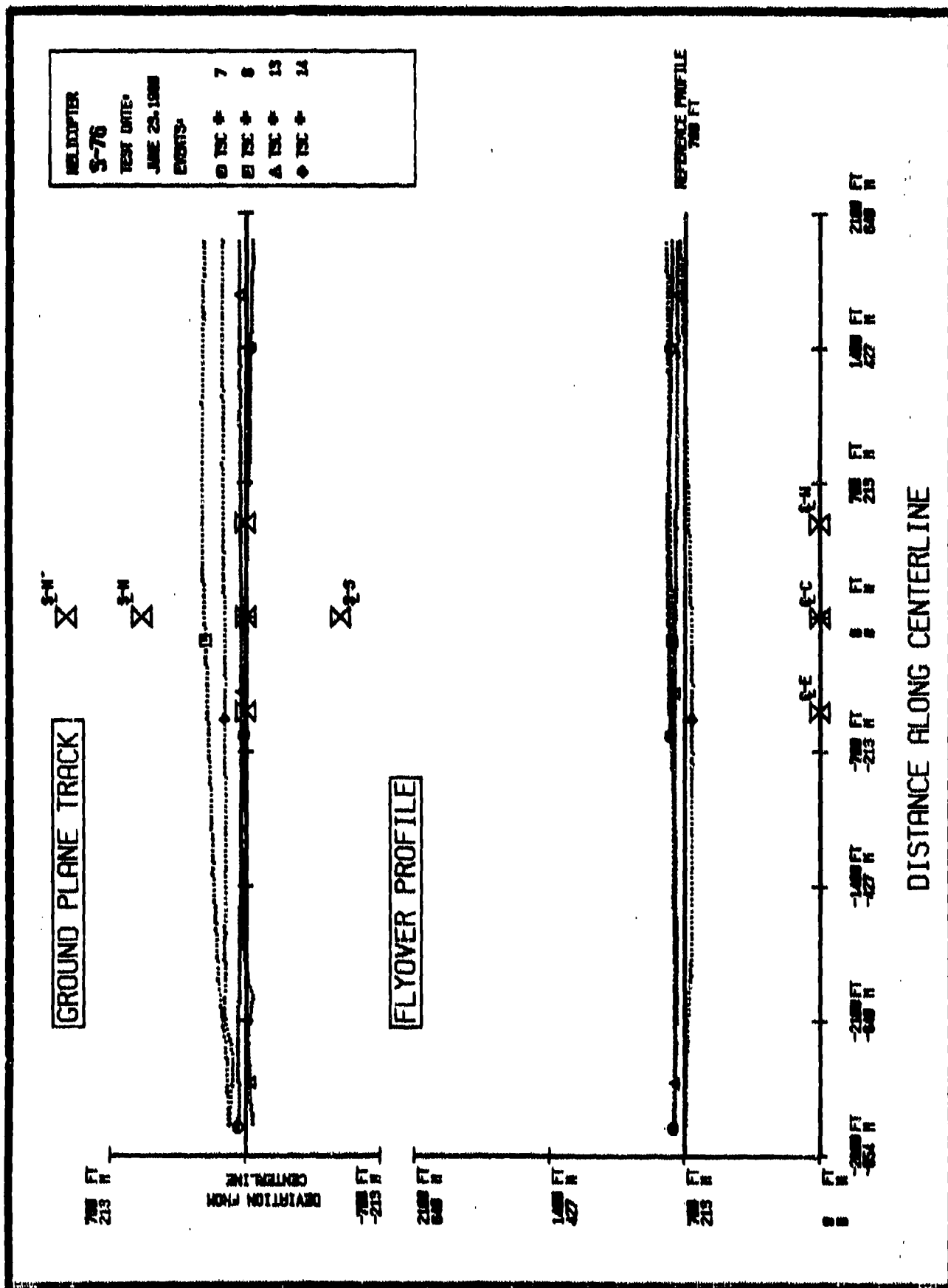


FIGURE C2-4

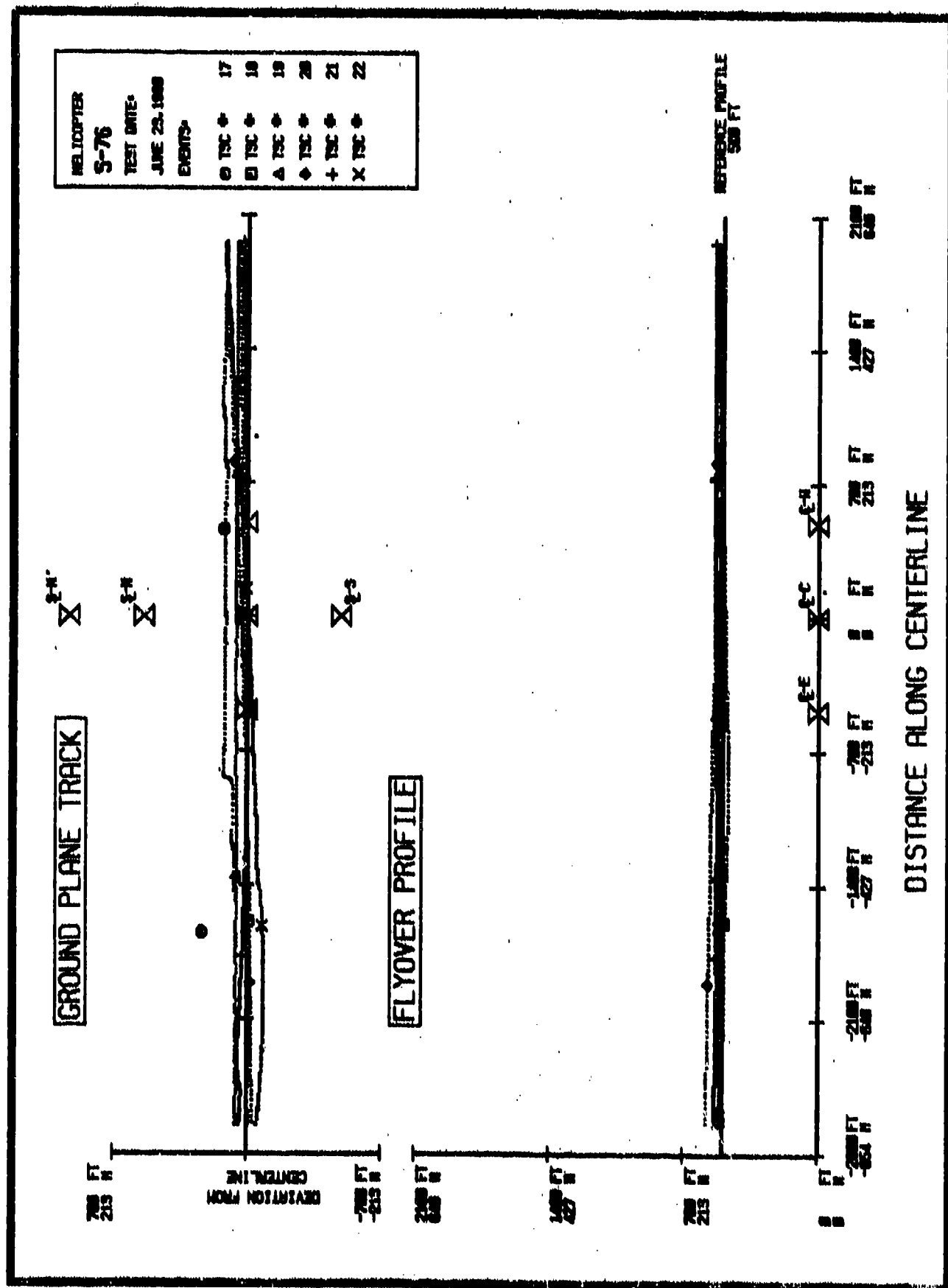


FIGURE C2-5

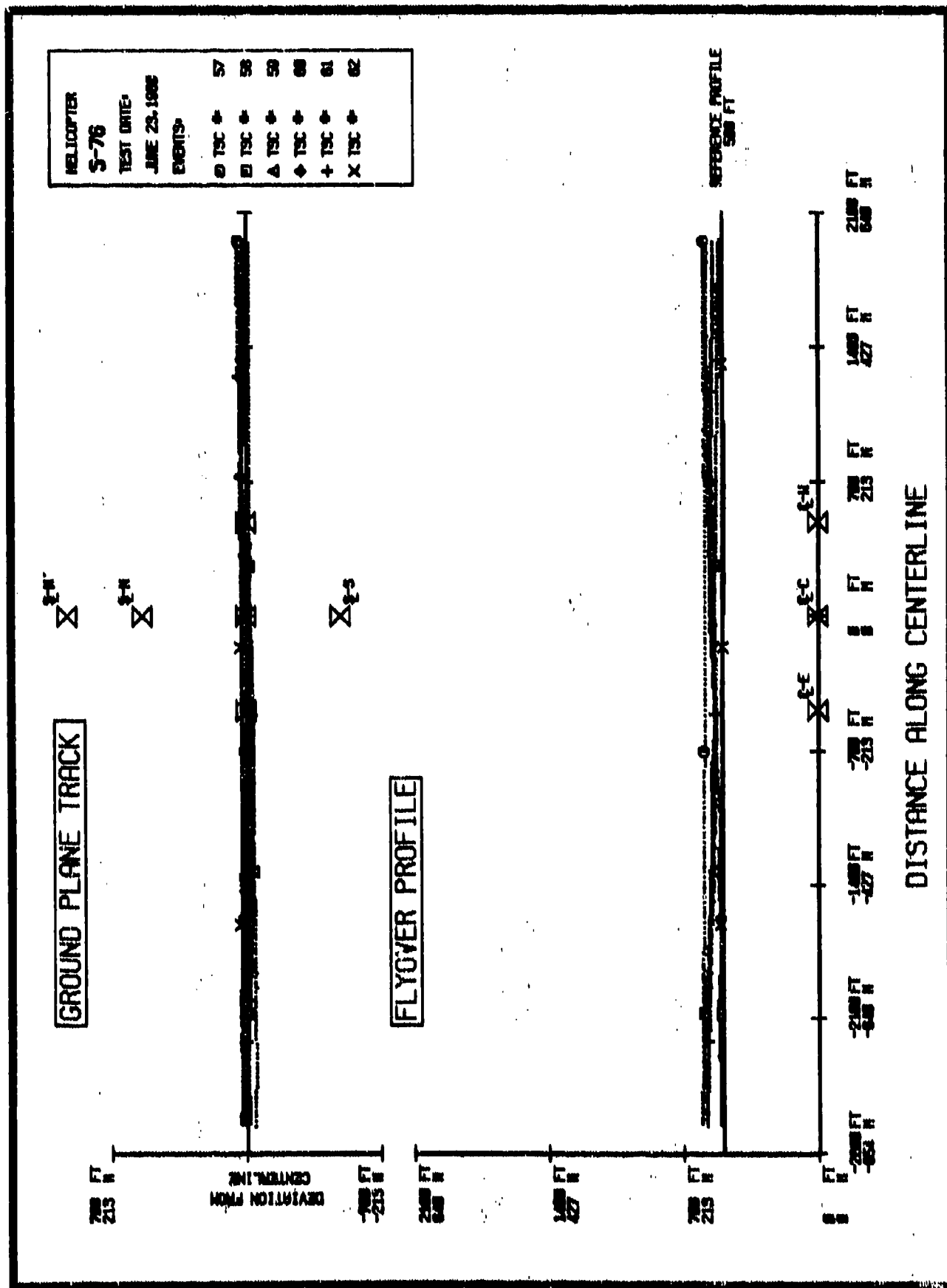
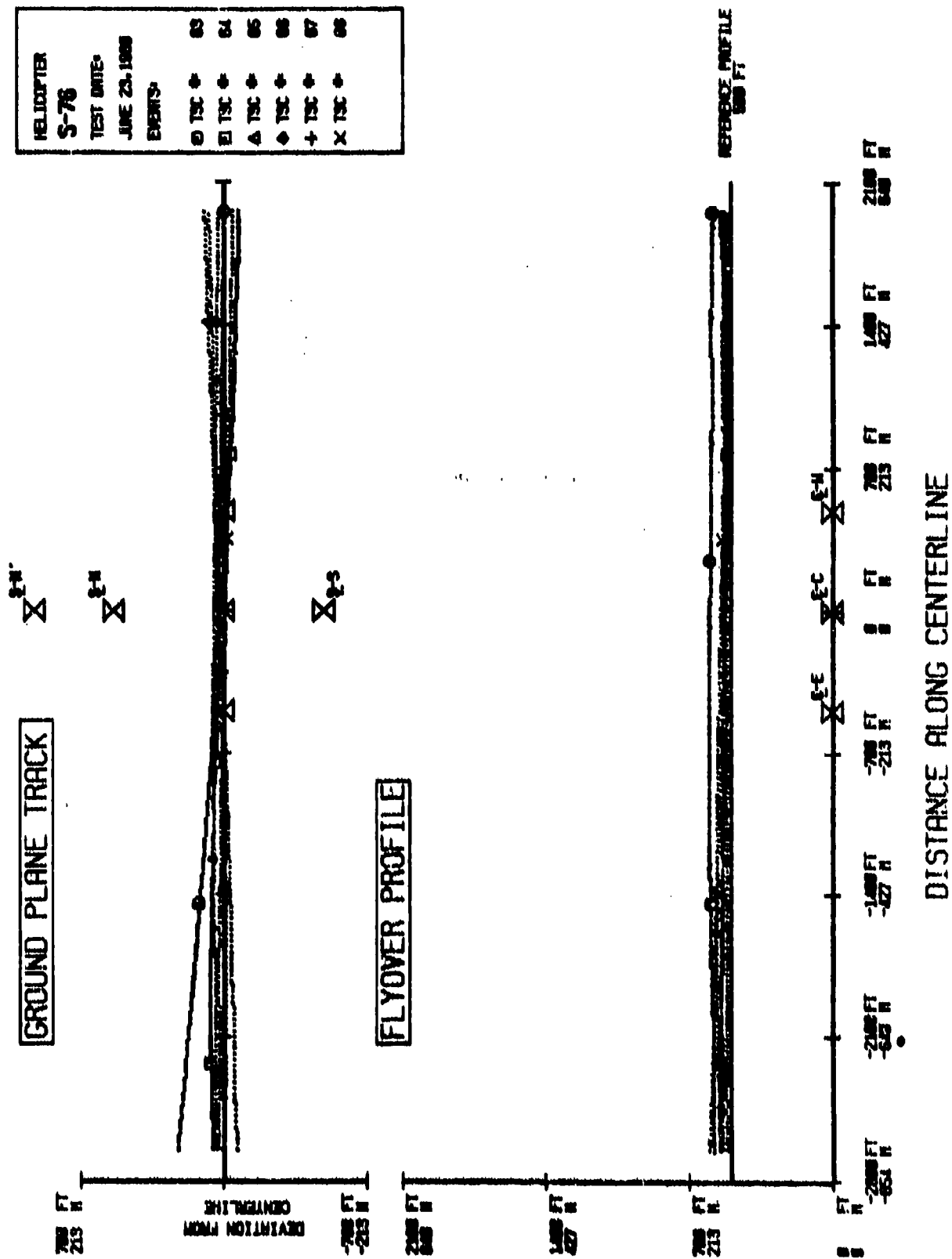


FIGURE C2-6



GROUND PLANE TRACK

CLIMB PROFILE

REFERENCE PROFILE

DISTANCE ALONG CENTERLINE

LEGEND:

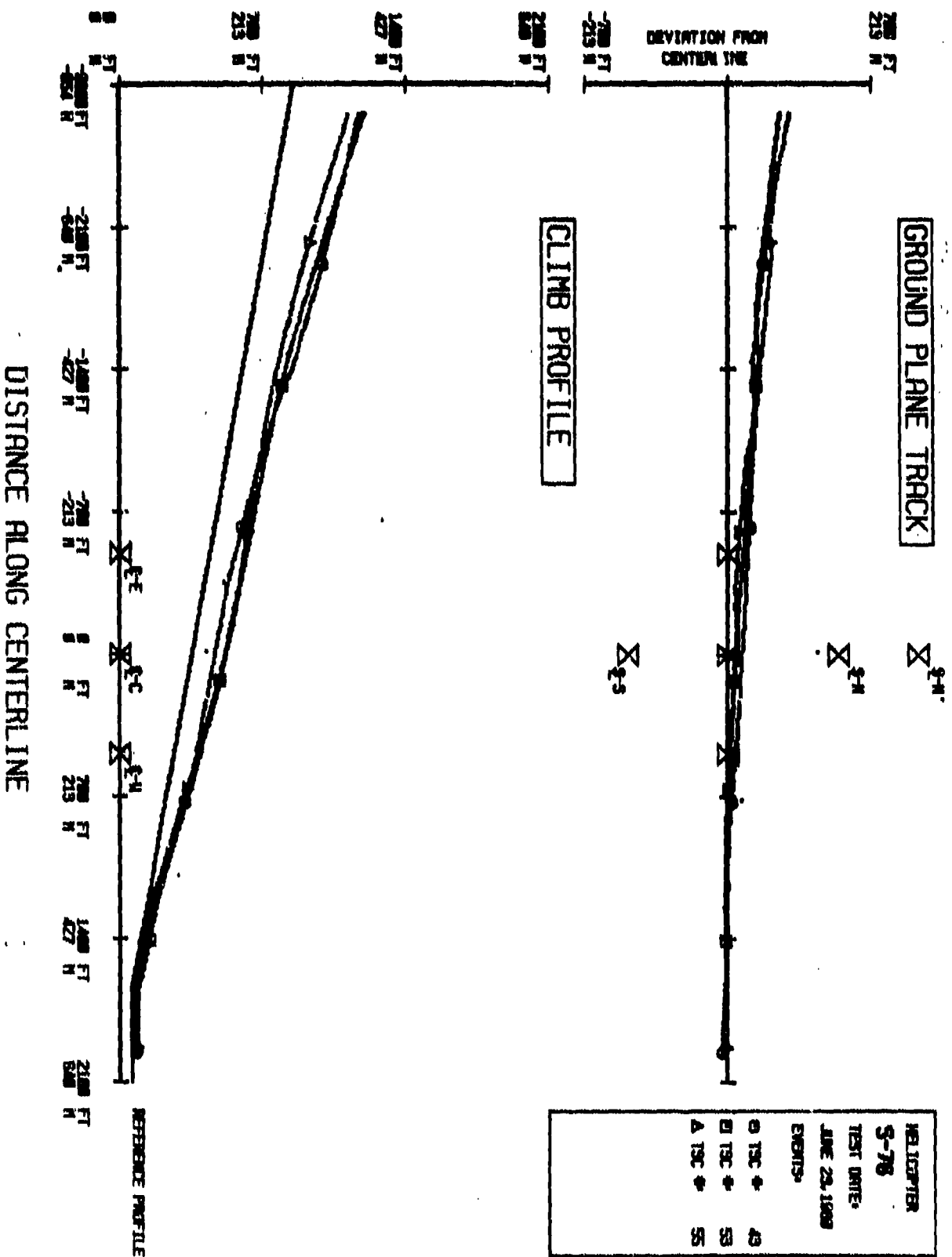
HELIOPTER	TEST DATE	ENGINE	DATA POINT
S-76	JUNE 23, 1968		
		53	○ TSC
		55	□ TSC
		57	△ TSC
		59	◆ TSC
		41	+ TSC

AXES:

- GROUND PLANE TRACK:** Y-axis is DEVIATION FROM CENTERLINE (FT). X-axis is DISTANCE ALONG CENTERLINE (FT).
- CLIMB PROFILE:** Y-axis is ALTITUDE (FT). X-axis is DISTANCE ALONG CENTERLINE (FT).
- REFERENCE PROFILE:** Y-axis is ALTITUDE (FT). X-axis is DISTANCE ALONG CENTERLINE (FT).

HELICOPTER					
S-76					
TEST DATE:					
JUNE 23, 1968					
EVENTS:					
① TSC #				33	
② TSC #				35	
③ TSC #				37	
④ TSC #				39	
+ TSC #				41	

FIGURE C2-8



HELICOPTER					
S-76					
TEST DATE-					
JUNE 23, 1988					
EVENTS-					
① TSC *				40	
② TSC *				50	
▲ TSC *				51	
◆ TSC *				52	

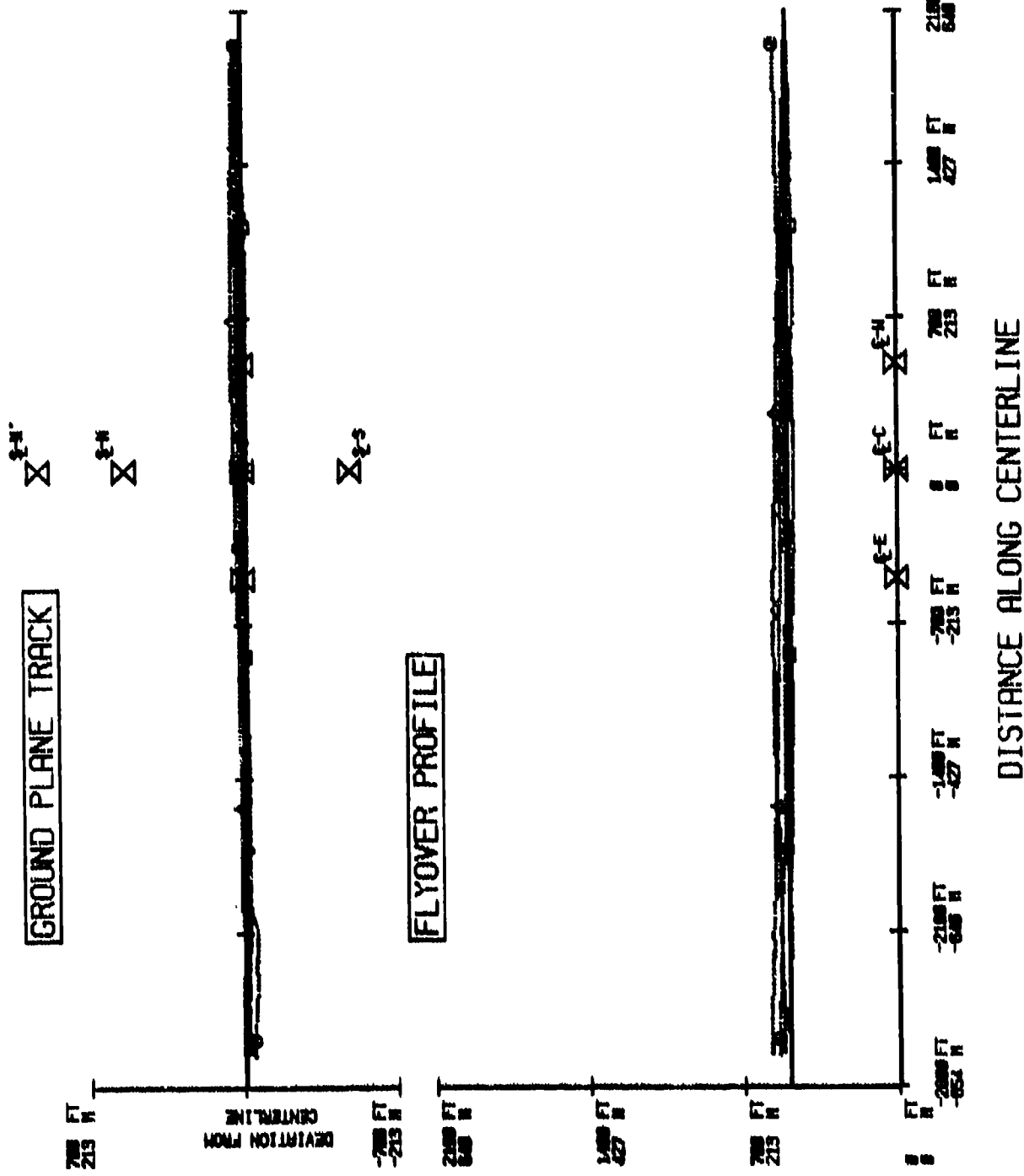


FIGURE C2-10

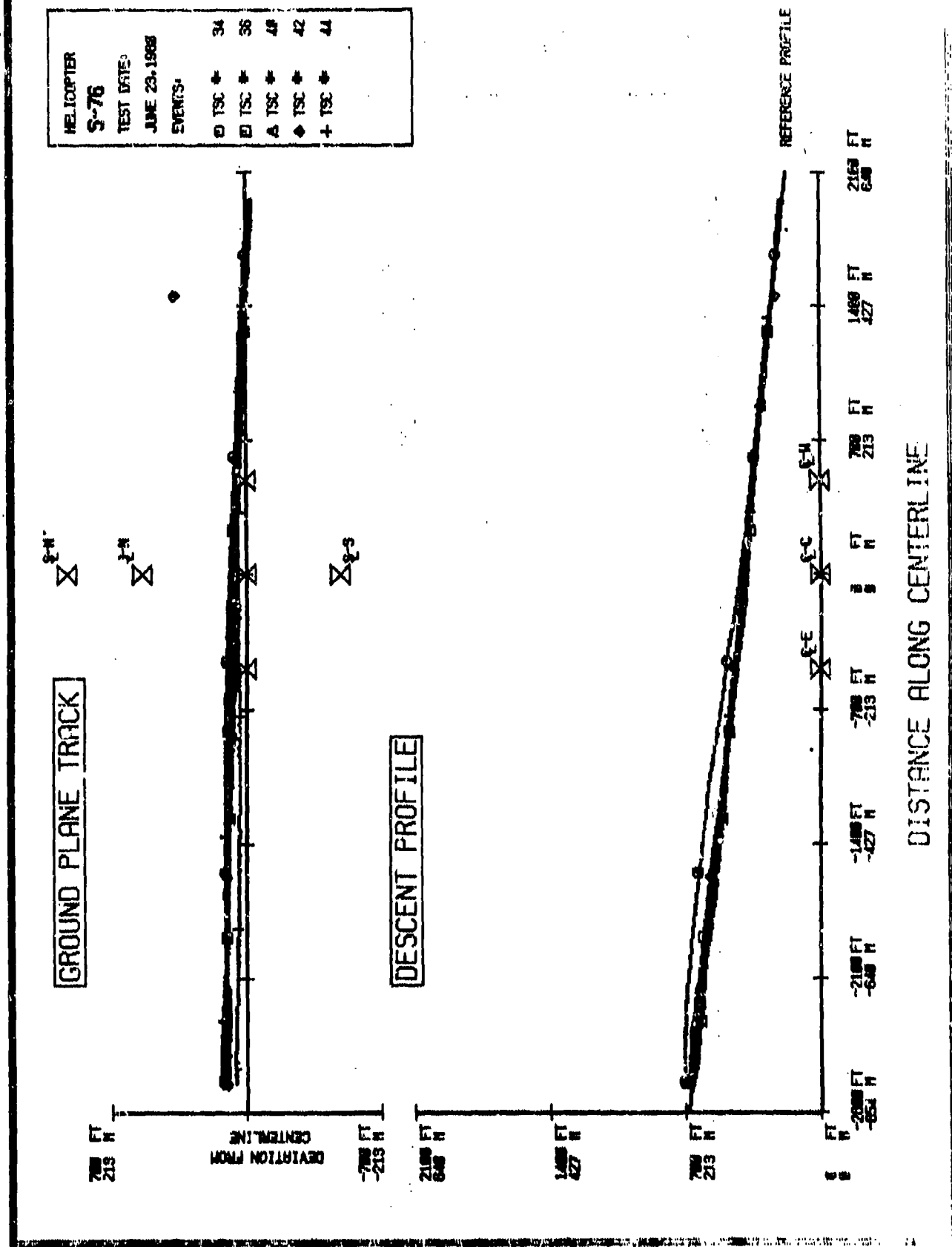


FIGURE C2-11

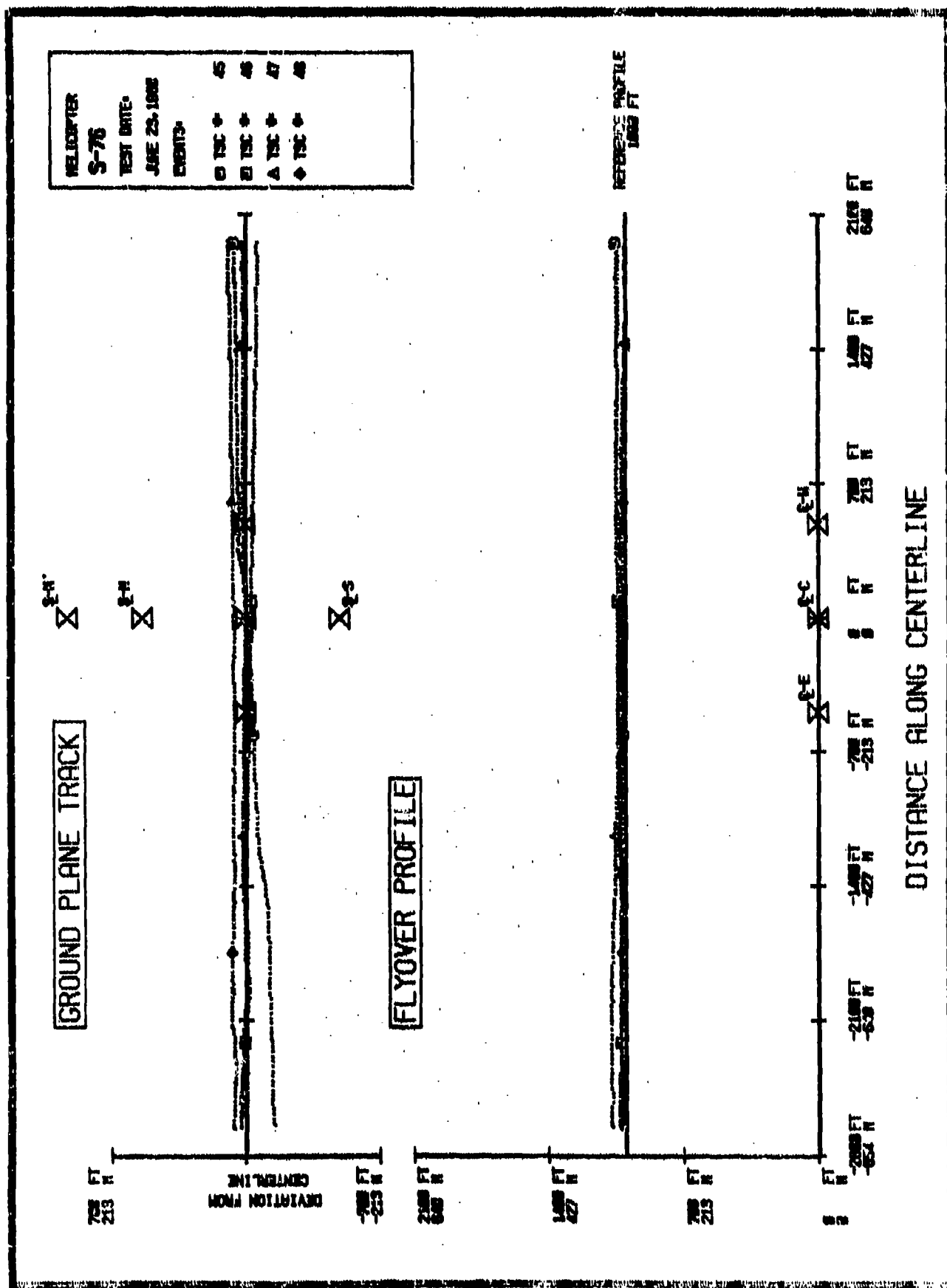


FIGURE C2-12

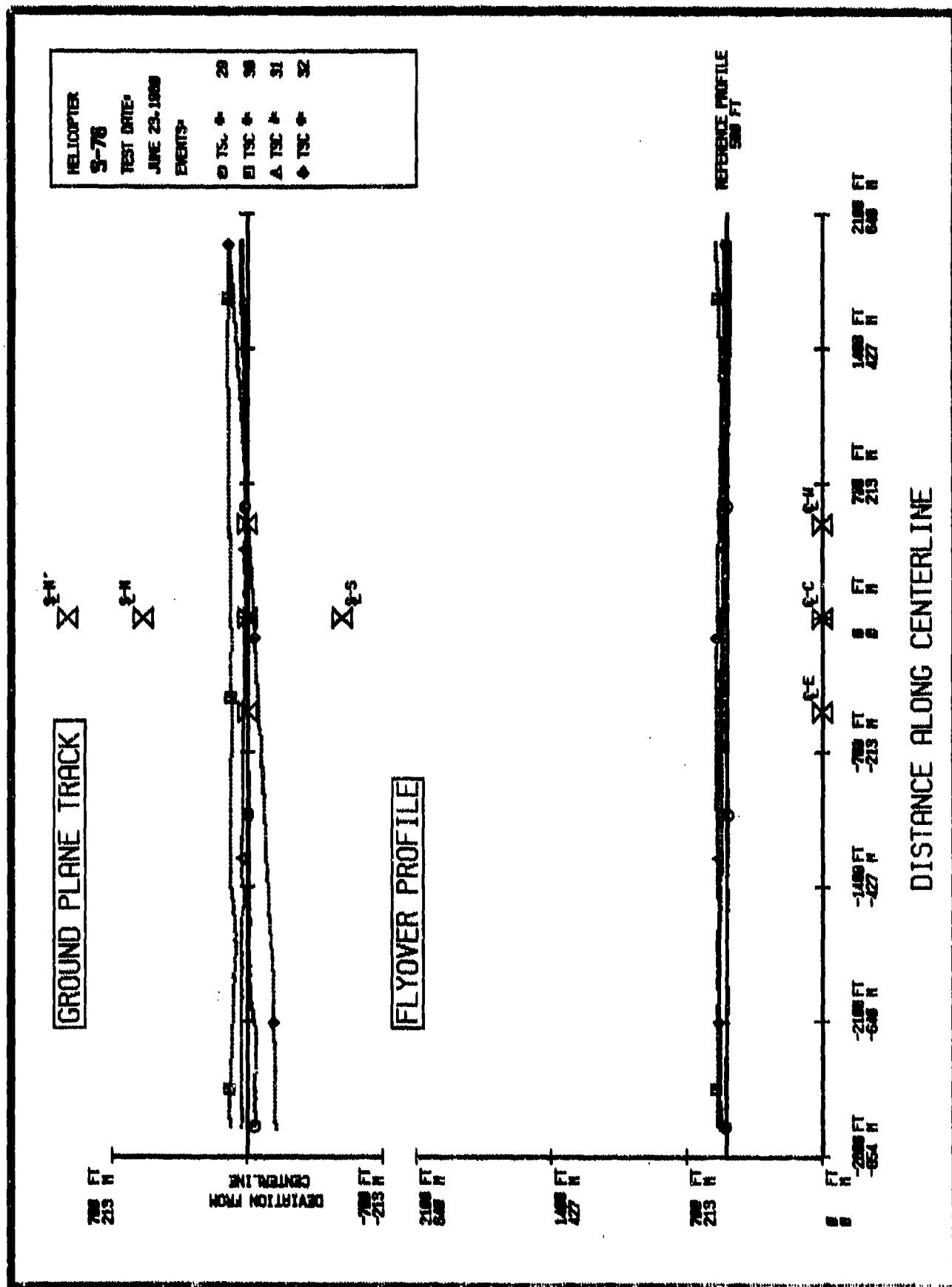


TABLE CB-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 180

678

DEC 13, 1980

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
2	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
3	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
4	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
5	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
6	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
7	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
8	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
9	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
10	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
11	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
12	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
13	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
14	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
15	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
16	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
17	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
18	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
19	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
20	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
21	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
22	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
23	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
24	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
25	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
26	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
27	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
28	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
29	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
30	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
31	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
32	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
33	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
34	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
35	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
36	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
37	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
38	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
39	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
40	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
41	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
42	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
43	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
44	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
45	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
46	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
47	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
48	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
49	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
50	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
51	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
52	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
53	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
54	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
55	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
56	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
57	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
58	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
59	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
60	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
61	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
62	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
63	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
64	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
65	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
66	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
67	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
68	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
69	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
70	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
71	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
72	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
73	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
74	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
75	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
76	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
77	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
78	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
79	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
80	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
81	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
82	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
83	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
84	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
85	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
86	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
87	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
88	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
89	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
90	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
91	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
92	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
93	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
94	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
95	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
96	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
97	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
98	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
99	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3
100	00:00:00	00:00:00	000	0.4	130.0	1586.0	1691.0	110.3

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

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 permit fully legible reproduction

TABLE CB-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 180
DEC 13, 1980

876

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25 F-1	6:28:35.0	6:28:34.5	15.3	0.1	143.3	533.0	588.5	114.9
26 F-1	6:28:10.0	6:28:09.5	-20.7	-0.3	176.3	547.8	580.6	109.4
27 F-1	6:31:43.5	6:31:43.1	-22.0	-0.1	149.0	483.4	497.1	102.5
28 F-1	6:33:50.5	6:33:50.0	-20.5	-0.1	177.0	502.0	500.2	118.1
29 F-1	6:36:50.5	6:36:50.0	-22.0	-0.3	95.0	402.2	558.9	117.8
30 F-1	6:38:47.0	6:38:46.5	33.2	0.2	123.7	520.0	613.4	124.0
31 F-1	6:41:34.5	6:41:34.0	-20.7	-1.2	97.2	518.5	583.6	117.7
32 F-1	6:43:42.0	6:43:41.5	23.2	1.1	110.8	541.7	610.3	117.4
33 DEPT	7:21:50.0	7:21:49.5	1310.3	8.7	84.8	517.2	572.2	63.4
34 DEPT	7:24:40.0	7:24:39.0	-231.7	-7.5	82.5	480.0	438.1	74.4
35 DEPT	7:28:47.5	7:28:47.1	1083.0	13.7	80.4	455.9	401.5	67.8
36 DEPT	7:31:32.2	7:31:32.2	-589.8	-5.4	81.3	583.2	401.2	107.2
37 DEPT	7:33:53.5	7:33:53.1	1710.2	11.0	82.0	478.0	427.4	108.7
38 DEPT	7:38:48.0	7:38:45.8	1804.3	11.4	83.4	471.4	471.4	90.6
40 DEPT	7:41:31.0	7:41:30.6	-654.2	-5.0	82.2	394.0	500.1	127.0
41 DEPT	7:46:05.0	7:46:04.6	1535.7	10.3	83.4	442.0	445.2	94.8
42 DEPT	7:49:11.5	7:49:11.1	-508.6	-5.0	83.4	403.3	465.0	110.7
43 DEPT	7:51:46.5	7:51:46.1	1499.0	10.4	80.4	459.3	488.4	101.2

REC. TIME: TIME PNLTH WAS RECORDED, RAD. TIME: TIME PNLTH WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTH WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CB-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

876

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
44	7:54:52.0	7:54:51.7	-883.7	-2.2	81.8	397.0	397.0	92.3
45	8:0:15.5	8:0:14.5	-389.8	-1.4	151.5	1017.0	1116.4	114.3
46	8:1:30.0	8:1:29.0	-130.8	0.5	137.8	1039.0	1171.8	117.5
47	8:5:14.0	8:5:12.8	-822.2	1.1	158.6	1027.5	1399.7	132.8
48	8:8:28.5	8:8:28.5	-127.3	-0.5	139.8	1013.0	1147.2	117.0
49	8:10:35.0	8:10:35.0	-123.7	-0.7	138.3	508.4	504.8	123.1
50	8:13:29.0	8:13:29.0	-150.2	-0.8	115.0	463.4	542.0	121.2
51	8:15:57.8	8:15:57.8	-104.7	0.7	131.0	525.0	832.0	140.8
52	8:18:12.3	8:18:12.3	-106.3	-0.9	117.8	542.4	761.0	133.0
53	8:22:17.1	8:22:17.1	-1007.3	13.8	80.3	503.8	504.8	93.0
54	8:25:40.5	8:25:40.1	-711.1	-8.4	88.0	380.0	488.2	123.3
55	8:28:23.5	8:28:23.5	-1804.7	12.1	74.1	457.7	523.4	72.0
56	8:41:5.8	8:41:4.8	-521.3	-4.7	62.5	350.7	470.2	123.2
57	8:45:34.5	8:45:33.0	-122.3	-0.1	157.0	553.4	780.2	125.0
58	8:48:30.0	8:48:29.0	-147.3	-0.7	132.4	532.7	698.0	120.8
59	8:53:38.0	8:53:38.0	-338.8	-1.2	153.0	531.4	723.2	132.7
60	8:57:58.4	8:57:58.4	-488.8	1.0	138.0	550.3	777.5	135.0
61	9:0:57.5	9:0:57.5	-173.7	-0.1	100.5	552.0	640.7	121.7
62	9:7:30.0	9:7:30.0	-173.7	-1.1	87.5	450.0	545.2	118.3
63	9:10:14.0	9:10:14.0	-46.7	0.3	100.8	594.4	680.5	110.1
64	9:13:44.0	9:13:44.0	-147.0	-0.9	88.9	502.5	592.2	110.4
65	9:16:15.0	9:16:15.0	424.5	1.6	185.3	544.1	645.7	123.1
66	9:19:55.0	9:19:18.0	38.7	0.1	152.1	515.0	743.0	136.2
67	9:21:33.7	9:21:33.7	245.2	0.2	127.7	521.0	871.7	143.3
68	9:23:28.1	9:23:28.1	-123.3	0.0	155.7	530.0	623.7	144.0
69	9:28:28.1	9:28:28.1	-730.5	-5.0	80.7	382.5	160.7	123.0
70	9:30:40.1	9:30:40.1	-521.3	-4.5	72.0	350.0	438.5	118.3

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED.
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT. O/D-ANG: CLIMB OR DESCENT ANGLE.
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH.
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED.
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE.

HELICOPTER POSITION DATA NOISE MEASUREMENT PROGRAM

FREE 100
 DEC 13, 1980

876
MIC # 2 CENTERLINE WEST, 4 FT

MIC # 2 CENTERLINE WEST, 4 FT

[illegible]

REC. TIME TIME PNLTN WAS RECORDED. RAD. TIME TIME PNLTN WAS RADIATED
R/O AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG CLIMB OR DESCENT ANGLE
GS GROUND SPEED. CPA CLOSEST POINT OF APPROACH
ER SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 02-2 (CONT)

TEST DATE: JUNE 23, 1980
 876
 MIC # 2 CENTERLINE WEST, 4 FT
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 DEC 13, 1980

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
26	6:28:37.0	6:28:38.5	-0.7	-0.0	142.5	534.3	596.5	118.4
27	6:29:07.5	6:29:08.0	-0.7	-0.2	178.4	540.4	730.7	131.2
28	6:31:45.0	6:31:44.5	55.0	0.2	149.4	489.0	538.9	118.3
29	6:33:57.5	6:33:58.0	-231.7	-0.7	178.0	508.5	842.3	127.7
30	6:36:54.0	6:36:53.5	-54.8	-0.3	94.8	491.8	523.7	110.2
31	6:38:44.5	6:38:43.0	-108.8	-0.4	122.0	530.0	631.7	124.8
32	6:41:37.5	6:41:37.0	-270.0	-1.0	97.5	504.4	578.8	119.0
33	6:43:30.5	6:43:30.0	340.5	1.2	120.2	533.0	862.5	117.2
34	7:01:45.0	7:01:44.7	324.8	12.5	77.2	374.2	393.2	72.1
35	7:04:43.0	7:04:42.7	-814.5	-7.3	82.7	353.0	354.6	95.4
36	7:08:45.0	7:08:45.6	1030.5	13.8	80.0	385.0	422.5	80.0
37	7:11:36.0	7:11:35.8	-535.3	-5.0	80.8	326.5	415.8	126.0
38	7:13:52.0	7:13:51.6	1713.3	11.6	32.4	375.0	417.8	84.0
39	7:15:43.5	7:15:43.0	1010.0	13.4	70.2	357.0	380.7	86.7
40	7:18:38.5	7:18:38.2	-706.6	-6.2	63.8	340.4	386.3	110.3
41	7:19:18.5	7:19:18.2	1600.3	11.2	70.8	350.0	374.5	80.4
42	7:19:18.5	7:19:18.2	-713.0	-6.2	63.0	350.7	421.5	123.7
43	7:51:44.5	7:51:44.2	1560.4	11.1	78.2	354.6	380.9	80.3

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TAVLE C2-2 (CONT)

POSITION DATA HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S78

FAA/AEE 189
DEC 13, 1980

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
44	7:54:55.0	7:54:54.8	-1820.7	-5.7	81.8	343.4	408.8	122.7
45	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
46	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
47	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
48	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
49	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
50	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
51	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
52	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
53	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
54	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
55	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
56	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
57	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
58	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
59	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
60	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
61	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
62	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
63	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
64	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
65	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
66	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
67	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
68	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
69	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
70	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
71	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
72	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
73	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
74	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
75	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
76	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
77	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
78	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
79	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
80	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
81	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
82	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
83	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
84	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
85	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
86	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
87	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
88	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
89	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
90	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
91	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
92	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
93	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
94	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
95	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
96	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
97	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
98	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
99	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8
00	00:00:11.0	00:00:00.8	-1820.7	-5.7	151.0	1031.0	1508.0	130.8

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED.
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. O/D-ANG: CLIMB OR DESCENT ANGLE.
GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH.
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED.
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE.

TABLE 02-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

876

MIC # 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O PPH	O/D-ANG DEG	GS KNOTS	CFA FT	SR FT	AR-ANG DEG
5	00:28:05.0	00:28:31.4	-42.0	-0.2	135.7	1524.7	1241.7	120.6
6	00:30:24.0	00:30:31.8	-61.3	-0.2	160.1	1555.0	1444.0	140.5
7	00:33:09.5	00:33:08.7	-453.5	-2.1	110.8	773.7	038.0	124.4
8	00:35:28.0	00:35:25.3	-111.0	-0.4	170.2	727.3	023.0	107.0
9	00:37:41.0	00:37:40.7	-143.3	-0.7	122.4	827.7	003.2	101.1
10	00:40:34.5	00:40:34.2	160.3	0.8	152.3	310.3	363.3	121.3
11	00:42:59.0	00:42:59.0	47.7	0.2	152.8	1462.3	023.0	130.1
12	00:45:59.0	00:45:54.7	81.5	0.3	120.2	753.4	023.0	125.7
13	00:48:59.0	00:48:54.7	-92.7	-0.3	170.2	003.0	727.2	113.7
14	00:51:30.0	00:51:20.4	0.0	0.0	123.7	303.0	320.7	113.0
15	00:54:10.5	00:54:10.2	263.7	0.0	152.5	306.0	330.5	115.3
16	00:56:31.0	00:56:30.7	42.0	0.5	130.0	517.2	510.0	85.2
17	00:58:00.0	00:58:05.5	-220.5	-1.0	160.4	470.1	531.7	117.0
18	01:00:41.5	01:00:41.0	139.2	0.5	181.0	532.8	503.2	116.0
19	01:03:20.0	01:03:25.5	275.0	0.5	181.0	542.1	522.2	120.4
20	01:06:00.0	01:06:05.0	92.7	0.7	74.3	523.5	522.2	116.1
21	01:11:45.5	01:11:45.0	70.5	0.4	106.2	517.4	1225.4	155.0
22	01:14:43.5	01:14:43.0	-162.5	-1.1	77.2	523.7	1500.3	117.5
23	01:16:43.0	01:16:43.0	-129.2	-0.7	103.6	493.3	1002.2	150.4

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT. O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CFA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CR-3 (CONT)

TEST DATE: JUNE 23, 1980
 878
 MIC # 3 CENTERLINE EAST, 4 FT

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEC 180
 DEC 13, 1980

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25 F-L	6:28:33.5	6:28:33.0	103.2	0.4	142.3	529.5	541.4	102.0
26 F-L	6:29:11.5	6:29:11.0	-79.3	-0.3	178.8	544.5	592.8	113.3
27 F-L	6:31:42.0	6:31:41.0	-25.7	-0.1	140.0	484.0	455.8	93.1
28 F-L	6:34:11.5	6:34:11.0	150.3	0.5	178.5	502.0	524.3	105.2
29 F-L	6:38:47.5	6:38:47.0	139.8	0.8	154.8	492.0	550.5	115.7
30 F-L	6:38:50.0	6:38:49.5	115.3	0.5	122.7	525.4	548.4	108.8
31 F-L	6:41:31.5	6:41:31.0	-212.8	-1.3	98.1	527.5	594.1	117.4
32 F-L	6:43:44.5	6:43:44.0	84.5	0.4	110.2	550.7	610.5	115.0
33 DEFP	7:21:52.0	7:21:51.5	1015.0	8.4	89.5	613.0	613.7	87.3
34 ARRP	7:24:35.5	7:24:35.1	-952.0	-2.5	83.4	495.0	507.0	77.0
35 DEFP	7:28:54.0	7:28:53.4	1043.5	13.4	80.8	605.0	607.3	60.2
36 ARRP	7:31:30.0	7:31:29.6	-687.0	-6.3	81.4	435.4	447.2	78.2
37 DEFP	7:33:57.0	7:33:57.0	1752.8	11.7	84.5	520.5	520.8	91.3
38 DEFP	7:38:40.5	7:38:40.0	1222.5	15.1	80.3	580.5	580.4	80.0
40 ARRP	7:41:27.0	7:41:26.0	-435.5	-4.0	82.4	415.0	493.0	115.5
41 DEFP	7:48:8.5	7:48:8.0	1250.4	13.1	85.5	537.0	537.0	96.0
42 ARRP	7:49:7.0	7:49:8.0	-205.0	-5.2	85.1	450.4	512.5	112.5
43 DEFP	7:51:50.5	7:51:50.0	1978.3	13.2	83.4	540.3	547.1	85.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CB-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

878

DEC 13, 1980

MIC 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
44	7:54:48.5	7:54:48.1	-509.3	-5.3	83.3	440.5	487.5	108.8
45	8:0:18.0	8:0:17.1	-144.8	-0.5	151.8	1011.5	1050.7	105.7
46	8:2:56.0	8:2:54.7	109.2	0.5	138.7	1035.7	1454.0	134.0
47	8:5:17.0	8:5:15.0	273.7	1.0	151.8	1038.3	1813.0	121.3
48	8:8:27.0	8:8:25.0	0.0	0.0	138.8	1017.2	1212.4	123.0
49	8:10:38.5	8:10:38.0	-30.5	-0.1	138.3	499.1	623.0	120.0
50	8:13:27.0	8:13:28.5	-55.3	-0.3	113.0	488.0	550.8	121.8
51	8:18:0.0	8:18:1.5	158.3	0.7	131.2	520.4	819.1	121.1
52	8:19:18.0	8:19:11.5	-12.2	-0.1	117.0	558.8	500.8	108.0
53	8:22:23.0	8:22:22.4	1740.2	11.1	87.4	810.0	880.7	87.8
54	8:25:44.5	8:25:44.0	-720.3	-5.7	81.0	443.8	534.8	124.0
55	8:28:37.0	8:28:38.0	1388.8	0.3	81.8	500.8	500.8	87.4
56	8:41:00.0	8:40:50.5	-655.2	-5.0	81.7	431.7	534.1	128.1
57	8:45:30.5	8:45:35.0	59.2	0.8	157.1	504.8	805.7	122.8
58	8:48:20.0	8:48:22.5	-74.2	-0.9	137.7	529.7	813.0	128.4
59	8:50:48.0	8:50:42.0	90.0	0.1	152.2	527.7	551.1	108.8
60	8:53:26.5	8:53:26.0	-557.7	-2.3	138.3	538.4	588.8	115.1
61	8:58:22.0	8:58:1.4	-372.0	-2.1	90.4	531.3	835.2	123.2
62	9:0:54.5	9:0:54.0	-74.7	-0.5	86.7	490.8	527.8	116.3
63	9:7:42.5	9:7:41.0	44.3	-0.2	100.5	500.3	872.7	117.0
64	9:10:11.0	9:10:10.5	-7.2	-0.0	88.8	532.7	819.5	120.7
65	9:13:47.0	9:13:48.4	363.3	1.2	184.7	550.8	787.1	128.0
66	9:18:18.5	9:18:12.0	33.7	0.0	155.2	512.7	520.7	118.0
67	9:18:38.0	9:18:37.5	418.5	1.4	185.8	534.2	507.7	116.7
68	9:21:4.0	9:21:3.5	-129.8	-0.1	158.0	528.2	821.7	122.1
69	9:25:25.5	9:25:25.1	-780.8	-6.2	70.7	492.7	451.8	108.7
70	9:30:37.5	9:30:37.1	-871.0	-6.7	72.8	431.0	445.3	104.5

REC. TIME: TIME PNLTH WAS RECORDED, RAD. TIME: TIME PNLTH WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTH WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CE-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

878

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
5:28:10.5	5:28:09.0	-115.0	-0.5	130.2	1640.8	1851.0	98.4	
5:30:30.0	5:30:34.4	-55.2	-0.2	180.0	1835.3	1788.0	112.3	
5:33:11.5	5:33:10.5	332.3	1.0	119.7	921.7	1130.0	125.3	
5:35:20.0	5:35:20.8	-220.0	-0.7	170.8	814.4	1302.0	141.5	
5:37:42.5	5:37:41.0	93.7	0.4	122.8	800.4	871.3	110.2	
5:40:32.5	5:40:31.0	88.8	0.3	152.1	809.8	881.3	110.5	
5:43:54.8	5:43:54.8	48.0	0.2	150.1	1503.8	2104.8	130.7	
5:45:50.5	5:45:52.7	-152.3	-0.7	122.0	881.2	902.1	104.0	
5:51:22.8	5:51:27.2	-273.0	-0.9	170.0	752.3	806.7	109.1	
5:54:13.5	5:54:13.0	-184.7	-0.7	124.8	752.7	875.4	95.8	
5:56:27.0	5:56:27.0	175.3	0.6	160.0	553.7	823.4	125.0	
5:59:08.4	5:59:08.4	90.2	0.4	134.7	628.8	870.8	112.3	
6:01:13.0	6:01:12.2	-320.0	-1.1	127.3	676.6	822.0	122.3	
6:03:27.3	6:03:27.3	83.3	0.3	124.1	688.2	792.1	120.4	
6:05:33.7	6:05:33.7	122.8	0.4	122.0	704.4	900.8	122.8	
6:07:40.0	6:07:40.0	32.5	0.2	73.7	722.3	773.9	111.0	
6:09:43.3	6:09:43.3	114.0	0.6	108.5	710.2	833.1	121.5	
6:11:48.0	6:11:47.5	-22.8	-0.0	77.1	522.1	600.2	107.3	
6:13:09.0	6:13:09.4	-140.5	-0.2	103.0	624.0	834.9	100.6	

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 02-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 130

878

DEC 13, 1980

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25 F-U	6:28:34.5	6:28:33.7	35.5	0.1	143.0	814.0	822.0	117.0
26 F-U	6:29:00.5	6:29:00.8	-89.7	-0.3	170.0	845.5	749.5	120.5
27 F-U	6:31:42.5	6:31:41.8	-55.8	-0.2	149.7	634.0	753.8	123.8
28 F-U	6:33:50.0	6:33:52.3	-82.7	-0.3	177.0	885.1	779.8	128.7
29 F-U	6:36:51.5	6:36:50.0	-44.3	-0.3	95.2	884.7	764.7	90.7
30 F-U	6:38:42.5	6:38:45.8	-0.3	-0.0	123.4	853.3	793.8	124.6
31 F-U	6:41:35.5	6:41:34.8	-244.7	-1.5	95.4	702.7	719.8	90.4
32 F-U	6:43:43.0	6:43:42.3	123.5	0.2	110.5	753.5	757.3	95.8
33 DEPP	7:21:47.5	7:21:48.0	1851.7	13.0	72.0	649.3	856.0	101.7
34 DEPP	7:24:37.5	7:24:37.0	-958.0	-8.5	83.4	570.7	856.4	103.8
35 DEPP	7:28:47.0	7:28:48.4	1570.3	13.7	80.0	652.8	880.5	108.4
36 ARR	7:31:32.0	7:31:31.5	-814.0	-5.2	91.5	550.8	524.0	108.8
37 DEPP	7:33:54.0	7:33:53.5	1783.8	11.2	93.1	622.1	624.6	95.1
38 DEPP	7:38:45.0	7:38:44.4	1749.7	12.0	81.8	640.1	670.2	107.1
40 ARR	7:41:27.0	7:41:28.2	-422.5	-4.0	82.4	570.1	953.1	141.2
41 DEPP	7:46:07.0	7:46:08.4	1732.7	11.3	85.8	622.1	858.8	70.0
42 ARR	7:49:08.0	7:49:07.2	-869.7	-5.7	84.0	580.0	871.5	138.0
43 DEPP	7:51:47.0	7:51:46.5	1505.8	10.4	81.1	622.0	822.5	98.3

REC. TIME: TIME PNLTW WAS RECORDED, RAD. TIME: TIME PNLTW WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTW WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 180

S76

DEC 13, 1980

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
5	00:00:00.0	00:00:00.0	-107.8	-0.4	135.8	1691.8	2347.0	133.0
6	00:00:00.0	00:00:00.0	-78.8	-0.3	159.8	1634.3	1924.8	121.0
7	00:00:00.0	00:00:00.0	71.7	-0.3	119.3	926.3	938.0	90.1
8	00:00:00.0	00:00:00.0	-181.5	-0.6	171.1	1040.3	1121.8	111.0
9	00:00:00.0	00:00:00.0	93.7	-0.4	122.6	544.2	621.5	113.0
10	00:00:00.0	00:00:00.0	199.0	-0.5	156.4	546.6	580.0	102.0
11	00:00:00.0	00:00:00.0	36.9	-0.1	159.1	1578.5	1775.8	117.4
12	00:00:00.0	00:00:00.0	-164.7	-0.8	122.8	909.0	916.2	91.4
13	00:00:00.0	00:00:00.0	-17.7	-0.7	171.3	895.7	900.0	100.0
14	00:00:00.0	00:00:00.0	-176.8	-0.8	124.3	577.0	656.2	104.2
15	00:00:00.0	00:00:00.0	173.8	-0.8	160.0	601.2	657.2	113.2
16	00:00:00.0	00:00:00.0	74.9	-0.9	129.4	782.4	800.7	103.2
17	00:00:00.0	00:00:00.0	-365.8	-1.2	167.1	698.6	739.9	109.0
18	00:00:00.0	00:00:00.0	150.0	-0.7	123.3	706.0	1005.1	130.0
19	00:00:00.0	00:00:00.0	263.2	-0.7	166.7	746.2	803.3	112.6
20	00:00:00.0	00:00:00.0	92.2	-0.2	73.7	723.0	775.2	111.2
21	00:00:00.0	00:00:00.0	-9.0	-0.0	107.1	704.1	1074.1	138.0
22	00:00:00.0	00:00:00.0	-12.8	-0.0	77.1	231.5	252.7	102.8
23	00:00:00.0	00:00:00.0	-125.6	-0.7	103.2	780.1	921.7	122.2

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CB-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 180
DEC 13, 1980

876

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
44	7:54:50.0	7:54:49.4	-500.7	-5.5	82.0	636.1	607.5	114.2
44	8:00:14.0	8:00:12.7	-1008.2	-1.1	151.7	1133.5	1440.0	122.1
44	8:05:50.0	8:05:47.2	-1288.7	0.5	137.3	1182.2	1491.1	122.6
44	8:11:14.0	8:11:12.7	-1528.2	1.1	152.6	1135.8	1492.0	130.5
44	8:16:50.0	8:16:47.7	-1728.2	-0.7	130.0	1008.0	1480.7	131.9
44	8:22:37.0	8:22:34.4	-1771.1	-0.7	130.4	893.0	720.3	108.1
44	8:28:20.0	8:28:17.3	-1747.1	-0.7	118.0	655.1	805.2	121.3
44	8:34:03.0	8:34:00.0	-161.1	-0.4	131.3	693.6	751.1	110.6
44	8:39:46.0	8:39:43.0	-1093.7	-0.0	117.0	725.1	927.5	127.6
44	8:45:29.0	8:45:26.0	-1093.7	-0.0	80.3	682.7	885.2	95.4
44	8:51:12.0	8:51:09.0	-1789.7	-0.7	61.0	600.5	900.7	142.4
44	8:56:55.0	8:56:52.0	-1678.7	-0.0	73.0	676.4	703.7	168.0
44	9:02:38.0	9:02:35.0	-1055.0	-0.0	61.7	625.2	1047.0	148.7
44	9:08:21.0	9:08:18.0	-1728.2	-0.1	157.0	750.1	965.0	122.8
44	9:14:04.0	9:14:01.0	-1728.2	-0.7	130.4	755.0	876.5	122.0
44	9:19:47.0	9:19:44.0	-1400.0	-0.5	153.6	753.3	981.6	138.5
44	9:25:30.0	9:25:27.0	-1381.1	-0.0	138.2	718.1	849.0	122.6
44	9:31:13.0	9:31:10.0	-124.4	-0.0	100.0	754.3	776.0	102.0
44	9:36:56.0	9:36:53.0	-124.4	-0.0	87.0	674.8	840.0	126.0
44	9:42:39.0	9:42:36.1	-728.0	-0.4	101.0	752.8	620.4	130.5
44	9:48:22.0	9:48:19.0	-482.0	-0.0	83.0	700.0	844.5	122.8
44	9:54:05.0	9:54:02.0	-124.4	-0.0	105.3	712.5	802.0	117.5
44	9:59:48.0	9:59:45.0	-67.0	-0.0	156.7	678.4	704.5	121.4
44	10:05:31.0	10:05:28.0	-347.0	-0.0	156.0	764.3	800.0	113.4
44	10:11:14.0	10:11:11.0	-124.4	-0.1	153.0	729.8	868.3	122.9
44	10:16:57.0	10:16:54.0	-728.0	-0.0	80.0	550.7	638.5	110.0
44	10:22:40.0	10:22:37.0	-124.4	-0.1	73.0	641.0	760.2	123.6

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CB-5 (CONT)

TEST DATE: JUNE 23, 1980
 876
 MIC # 5 SIDELINE SOUTH, 4 FT

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 DEC 13, 1980

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25 F-U	6:28:35.0	6:28:34.4	15.3	0.1	143.3	666.2	722.7	113.9
26 F-U	6:29:10.5	6:29:09.8	-69.0	-0.2	177.1	817.0	824.6	97.2
27 F-U	6:31:42.0	6:31:41.2	-22.7	-0.1	140.0	740.6	957.7	129.4
28 F-U	6:34:00.5	6:33:59.2	25.2	0.1	176.8	772.0	773.1	91.4
29 F-U	6:36:51.5	6:36:50.0	-44.3	-0.3	95.2	692.0	708.2	99.7
30 F-U	6:38:48.0	6:38:47.3	74.2	0.3	182.8	773.2	788.1	101.2
31 F-U	6:41:35.5	6:41:34.8	-244.7	-1.5	95.4	723.0	737.2	100.0
32 F-U	6:43:42.5	6:43:41.8	221.0	1.0	112.0	708.7	746.0	102.2
33 DEFP	7:01:50.0	7:01:49.3	1910.3	8.7	84.6	774.0	825.6	69.8
34 DEFP	7:24:40.0	7:24:39.4	-331.7	-7.5	62.5	706.6	710.1	84.0
35 DEFP	7:28:50.5	7:28:49.8	1952.3	13.3	82.1	737.0	808.1	94.2
36 DEFP	7:31:33.0	7:31:32.4	-552.7	-5.1	61.3	672.0	692.6	101.4
37 DEFP	7:33:55.0	7:33:54.3	1740.0	11.0	24.0	745.1	782.5	71.0
38 DEFP	7:38:46.5	7:38:44.0	1722.0	11.7	81.0	711.6	715.2	95.2
40 ARR	7:41:02.5	7:41:01.0	-711.2	-3.3	63.7	666.5	690.2	105.1
41 DEFP	7:46:05.0	7:46:04.4	1935.7	10.3	43.4	700.2	701.3	93.3
42 ARR	7:49:12.5	7:49:11.0	-601.2	-5.3	63.7	685.0	701.6	102.1
43 DEFP	7:51:47.0	7:51:46.4	1505.2	10.4	81.1	718.3	712.7	91.8

REC. TIME: TIME PNLTW WAS RECORDED, RAD. TIME: TIME PNLTW WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTW WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CR-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

878

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
4444	0000	0000	1000	-0.1	61.8	662.7	665.4	84.8
4444	0000	0000	1000	-1.0	151.4	1122.3	1157.7	103.4
4444	0000	0000	1000	-0.5	137.3	1137.0	1148.0	120.0
4444	0000	0000	1000	-0.5	151.4	1148.0	1148.0	90.3
4444	0000	0000	1000	-0.5	130.7	1155.0	1004.0	133.0
4444	0000	0000	1000	-0.5	130.7	718.0	813.0	118.7
4444	0000	0000	1000	-0.5	115.0	663.0	738.0	115.7
4444	0000	0000	1000	-0.5	131.0	745.0	772.0	105.4
4444	0000	0000	1000	-0.5	118.0	738.4	787.0	105.4
4444	0000	0000	1000	-0.5	80.0	724.7	725.4	82.8
4444	0000	0000	1000	-0.5	80.0	644.0	689.0	110.7
4444	0000	0000	1000	-0.5	77.4	721.0	701.0	88.6
4444	0000	0000	1000	-0.5	63.0	620.0	625.0	88.6
4444	0000	0000	1000	-0.5	157.4	773.1	794.0	103.4
4444	0000	0000	1000	-0.5	130.0	714.0	748.0	107.4
4444	0000	0000	1000	-0.5	153.0	724.7	820.0	110.7
4444	0000	0000	1000	-0.5	100.0	725.5	782.0	104.5
4444	0000	0000	1000	-0.5	87.4	718.0	738.0	111.6
4444	0000	0000	1000	-0.5	100.0	724.0	831.1	105.0
4444	0000	0000	1000	-0.5	89.0	724.0	734.0	99.3
4444	0000	0000	1000	-0.5	100.0	740.0	861.0	119.5
4444	0000	0000	1000	-0.5	155.0	744.0	1050.0	134.8
4444	0000	0000	1000	-0.5	155.0	729.0	841.4	119.0
4444	0000	0000	1000	-0.5	155.0	718.0	905.0	131.0
4444	0000	0000	1000	-0.5	73.3	645.0	702.0	113.1
4444	0000	0000	1000	-0.5	73.3	600.0	753.4	126.0

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

HELICOPTER POSITION DATA NOISE MEASUREMENT PROGRAM

576

MIC # 6 SIDELINE NORTH, 4 FT

DEC 13 1980

[illegible]

REC. TIME TIME PNLTM WAS RECORDED, RAD. TIME TIME PNLTM WAS RADIATED
R/O AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG CLIMB OR DESCENT ANGLE
GS GROUND SPEED, CPA CLOSEST POINT OF APPROACH
SR SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CR-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEC 120

876

DEC 13, 1980

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
26 F-L	6:26:36.5	6:26:35.5	8.0	0.0	143.1	1140.9	1143.8	88.0
26 F-L	6:26:36.5	6:26:35.5	-89.0	-0.2	177.1	984.1	974.4	98.3
27 F-L	6:31:42.5	6:31:41.5	-55.8	-0.2	149.7	981.2	1101.7	117.1
28 F-L	6:34:00.0	6:33:59.1	1.7	0.0	176.0	980.8	988.7	103.8
29 F-L	6:38:52.5	6:38:51.6	-32.5	-0.2	98.2	1051.3	1051.5	91.2
30 F-L	6:38:48.5	6:38:47.8	81.7	0.4	182.3	987.4	988.0	94.1
31 F-L	6:41:35.5	6:41:34.8	-244.7	-1.5	95.4	1051.2	1082.0	98.5
32 F-L	6:43:41.5	6:43:40.5	232.0	1.1	119.3	1104.6	1179.8	110.5
33 DEFP	7:21:47.0	7:21:46.1	1960.5	13.9	78.2	973.3	1014.1	106.3
34 ARR	7:24:35.5	7:24:34.8	-658.0	-8.5	83.4	940.8	1017.9	112.5
35 DEFP	7:28:46.5	7:28:45.6	1069.7	13.7	80.0	1000.5	1057.0	102.8
36 ARR	7:31:30.0	7:31:29.1	-687.0	-6.3	81.4	931.0	1022.4	114.4
37 DEFP	7:33:50.0	7:33:48.9	1797.8	12.0	80.8	986.8	1218.6	127.5
38 DEFP	7:38:47.0	7:38:46.1	1692.8	11.3	83.8	1003.3	1003.7	88.3
40 ARR	7:41:23.5	7:41:22.2	-522.6	-4.7	62.5	965.8	1506.8	140.1
41 DEFP	7:46:07.0	7:46:06.1	1733.7	11.3	85.8	982.4	994.0	81.2
42 ARR	7:49:04.5	7:49:03.2	-611.2	-5.4	84.5	951.6	1438.3	138.6
43 DEFP	7:51:49.5	7:51:48.6	1201.2	12.1	82.8	975.6	996.9	78.2

REC. TIME TIME PNLTM WAS RECORDED, RAD. TIME TIME PNLTM WAS RADIATED
R/C AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG CLIMB OR DESCENT ANGLE
GS GROUND SPEED, CPA CLOSEST POINT OF APPROACH
SR SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CB-6 (CONT)

TEST DATE: JUNE 23, 1980
 878
 MIC # 6 SIDELINE NORTH, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 180
 DEC 13, 1980

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
44	7:54:40.0	7:54:48.1	-578.8	-5.8	88.9	974.3	1081.0	113.4
45	7:54:48.1	7:54:55.1	-588.8	-11.1	151.7	1382.6	1050.0	123.8
46	7:54:55.1	7:55:02.1	-125.5	0.5	137.7	1414.9	1583.1	118.7
47	7:55:02.1	7:55:09.1	-281.7	1.0	153.1	1380.0	1911.3	133.7
48	7:55:09.1	7:55:16.1	-179.7	-0.7	138.4	1331.5	1501.3	123.8
49	7:55:16.1	7:55:23.1	-171.2	-0.7	138.4	1044.5	1084.0	105.7
50	7:55:23.1	7:55:30.1	-104.0	0.5	118.1	1055.0	1088.0	93.2
51	7:55:30.1	7:55:37.1	-93.0	0.4	131.3	1035.5	1080.7	102.3
52	7:55:37.1	7:55:44.1	-117.8	-0.0	117.4	1078.3	1100.7	118.0
53	7:55:44.1	7:55:51.1	-165.0	-10.7	88.3	1030.4	1105.6	80.2
54	7:55:51.1	7:55:58.1	-709.0	-10.3	61.7	1030.4	1148.8	120.5
55	7:55:58.1	7:56:05.1	-418.0	-10.3	77.4	1024.7	1058.7	75.4
56	7:56:05.1	7:56:12.1	-677.0	-10.9	80.0	1032.2	1091.7	148.4
57	7:56:12.1	7:56:19.1	-122.0	-1.1	157.0	1088.4	1203.0	115.6
58	7:56:19.1	7:56:26.1	-82.0	-1.1	133.6	1088.4	1127.4	105.5
59	7:56:26.1	7:56:33.1	-333.0	-1.1	152.0	1070.6	1214.5	118.0
60	7:56:33.1	7:56:40.1	-379.0	-1.1	136.0	1055.6	1127.0	147.0
61	7:56:40.1	7:56:47.1	-122.0	-0.7	99.7	1101.1	1081.0	82.6
62	7:56:47.1	7:56:54.1	-41.0	-0.3	87.7	1022.1	1098.0	143.0
63	7:56:54.1	7:57:01.1	-81.0	-0.1	101.0	1070.4	1012.8	114.5
64	7:57:01.1	7:57:08.1	-102.0	-0.6	88.0	1057.3	1101.8	105.1
65	7:57:08.1	7:57:15.1	-410.0	0.1	155.1	1052.3	1090.1	105.1
66	7:57:15.1	7:57:22.1	-92.0	0.1	158.1	1081.0	1203.0	105.6
67	7:57:22.1	7:57:29.1	-415.0	1.4	158.0	1050.0	1090.0	109.0
68	7:57:29.1	7:57:36.1	-85.0	0.0	158.0	1078.1	1146.0	109.0
69	7:57:36.1	7:57:43.1	-71.0	-0.0	71.0	970.8	1533.0	140.0
70	7:57:43.1	7:57:50.1	-728.0	-5.6	73.2	1026.1	1037.2	110.7

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

HELICOPTER POSITION DATA NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
870

FAA/AEE 120
DEC 13, 1980

MIC \$10 CENTERLINE CENTER, GROUND

[illegible]

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D: ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CB-7

TEST DATE: JUNE 23, 1980
 978
 MIC #10 CENTERLINE CENTER, GROUND

 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 180
 DEC 13, 1980

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
26 FTL	8:28:28.0	8:28:24.5	15.3	0.1	143.3	537.9	502.1	114.7
26 FTL	8:29:00.0	8:29:00.0	-109.7	-0.3	178.0	551.7	558.3	123.1
27 FTL	8:31:43.5	8:31:43.1	-128.0	-0.1	140.8	487.4	500.0	103.3
27 FTL	8:33:50.0	8:33:50.4	-122.7	-0.0	177.8	505.0	572.1	131.8
28 FTL	8:36:50.0	8:36:50.0	-153.8	-0.0	96.0	498.8	500.5	117.8
29 FTL	8:38:47.0	8:38:46.5	-123.7	-0.2	123.7	524.0	618.7	121.7
30 FTL	8:41:35.0	8:41:34.5	-133.0	-1.4	98.8	520.5	552.1	100.5
30 FTL	8:43:41.5	8:43:40.0	-123.0	1.1	118.3	540.7	670.1	125.6
33 DEPT	7:21:47.5	7:21:47.0	1251.7	10.0	78.0	521.0	524.5	88.6
34 DEPT	7:24:39.5	7:24:39.1	-1044.5	-7.5	63.8	423.0	428.0	81.9
35 DEPT	7:28:59.5	7:28:40.5	1904.0	13.5	31.0	400.8	508.5	60.8
36 DEPT	7:31:32.0	7:31:31.0	-614.0	-5.0	61.5	387.1	423.1	113.8
37 DEPT	7:33:32.0	7:33:33.0	1723.0	11.8	33.1	482.8	483.0	81.9
39 DEPT	7:38:46.0	7:38:46.0	1624.0	11.4	32.4	475.3	475.3	80.7
40 DEPT	7:41:31.5	7:41:31.1	-670.3	-5.0	33.7	500.8	480.8	121.0
41 DEPT	7:46:11.5	7:46:11.2	1505.7	10.0	33.4	447.8	440.8	94.5
42 DEPT	7:51:47.5	7:51:47.1	-592.8	-5.3	33.4	467.8	468.6	110.5
43 DEPT	7:51:47.5	7:51:47.1	1507.0	10.5	32.0	463.8	460.4	83.8

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 02-7 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

878

DEC 13, 1980

MIC #10 CENTERLINE CENTER, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
44	7:54:52.5	7:54:52.2	-828.0	-8.3	81.8	400.0	401.0	80.0
45	8:0:13.5	8:0:13.2	-854.3	-8.0	152.3	1021.0	1485.4	135.8
46	8:3:0.0	8:2:50.0	130.8	0.5	137.8	1043.5	1175.1	117.4
47	8:5:12.2	8:5:12.2	303.7	1.1	153.4	1091.5	1511.0	137.0
48	8:8:27.5	8:8:22.2	-114.2	-0.5	139.7	1017.0	1480.8	138.0
49	8:10:32.5	8:10:32.0	-123.7	-0.7	130.3	510.4	607.0	122.0
50	8:12:32.5	8:12:22.5	-147.2	-0.7	116.0	487.4	605.8	120.6
51	8:15:32.5	8:15:27.0	164.7	0.7	131.0	550.0	836.8	140.7
52	8:18:32.5	8:18:30.0	-106.3	-0.0	117.6	552.4	784.6	123.7
53	8:21:32.5	8:21:25.5	178.1	0.0	82.4	507.7	630.3	70.3
54	8:24:32.5	8:24:20.1	-711.8	-4.0	68.8	300.0	160.8	123.1
55	8:27:32.5	8:27:14.0	1670.4	0.0	73.0	591.5	511.2	78.8
56	8:30:32.5	8:30:4.0	-521.3	-4.7	88.8	324.7	473.7	123.8
57	8:33:32.5	8:33:0.0	-1732.0	-1.7	157.0	527.4	720.4	125.7
58	8:36:32.5	8:36:0.0	-1771.8	-1.0	138.5	526.7	785.2	130.0
59	8:39:32.5	8:39:0.0	-398.0	-1.2	153.0	535.4	727.0	132.7
60	8:42:32.5	8:42:0.0	-408.0	-1.0	126.0	551.0	780.0	134.8
61	8:45:32.5	8:45:4.0	-177.5	-0.1	120.8	556.0	653.1	121.5
62	8:48:32.5	8:48:0.0	-171.5	-1.1	87.5	400.0	580.8	123.0
63	8:51:32.5	8:51:32.4	-151.2	-0.9	100.7	502.5	732.8	125.0
64	8:54:32.5	8:54:13.4	-150.3	-1.0	87.7	526.5	648.4	125.5
65	8:57:32.5	8:57:13.0	424.5	1.5	165.3	545.1	840.0	123.0
66	9:00:32.5	8:57:13.0	338.7	0.7	160.1	510.0	748.7	130.1
67	9:03:32.5	8:58:13.0	216.7	0.1	127.0	528.8	1022.6	140.1
68	9:06:32.5	8:59:4.0	-733.0	-0.1	155.5	524.0	802.4	132.0
69	9:09:32.5	8:59:28.0	-733.0	-0.0	60.0	306.4	432.2	116.6
70	9:12:32.5	9:00:4.0	-581.3	-4.0	73.0	300.0	442.2	116.1

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

HELICOPTER POSITION DATA NOISE MEASUREMENT PROGRAM

FAA/AEE 120
DEC 13, 1980

826

MIC #1H CENTERLINE CENTER, 33FT

[illegible]

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 180
DEC 13, 1980

878

MIC #1H CENTERLINE CENTER, 33FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25 F-I	6:28:35.0	6:28:34.5	15.3	0.1	143.3	505.3	550.7	115.5
26 F-I	6:29:09.5	6:29:08.0	-99.7	-0.3	178.0	510.8	626.6	124.0
27 F-I	6:31:43.0	6:31:42.8	-48.7	-0.2	140.5	454.8	516.3	119.3
28 F-I	6:33:50.0	6:33:50.4	-82.7	-0.3	177.8	473.8	641.0	132.4
29 F-I	6:36:50.0	6:36:49.5	-41.3	-0.2	95.2	483.8	576.0	126.4
30 F-I	6:38:47.0	6:38:46.5	33.2	0.2	123.7	491.4	587.0	123.2
31 F-I	6:41:34.5	6:41:34.0	-268.7	-1.2	97.2	487.8	558.3	118.8
32 DEFP	6:43:41.5	6:43:40.9	232.0	1.1	110.3	512.8	640.2	126.8
33 DEFP	7:21:48.5	7:21:48.1	1801.5	10.0	81.8	480.4	494.8	81.5
34 DEFP	7:24:40.0	7:24:39.6	-831.7	-7.5	62.5	392.0	411.1	78.5
35 DEFP	7:28:40.0	7:28:40.0	1951.8	13.4	21.1	458.8	477.8	73.8
36 DEFP	7:31:32.0	7:31:31.7	-614.0	-5.6	61.5	354.0	391.4	114.0
37 DEFP	7:33:54.0	7:33:53.8	1723.8	11.8	23.1	451.1	451.8	92.7
38 DEFP	7:38:40.0	7:38:40.0	1884.9	11.4	22.4	443.8	443.3	91.4
40 DEFP	7:41:32.0	7:41:31.8	-820.5	-5.1	63.8	366.3	411.7	117.1
41 DEFP	7:46:05.0	7:46:04.8	1535.7	10.3	33.4	415.5	417.8	95.8
42 DEFP	7:49:11.5	7:49:11.1	-532.8	-5.3	29.4	375.4	437.4	129.0
43 DEFP	7:51:47.5	7:51:47.1	1537.0	10.5	22.0	431.2	434.5	83.0

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 180

878

DEC 13, 1980

MIC #1H CENTERLINE CENTER, 33FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
44	7:54:52.5	7:54:52.2	-388.0	-0.3	81.8	388.2	388.4	88.3
45	7:54:53.0	7:54:53.0	-384.2	-1.3	151.4	388.0	1157.5	121.0
46	7:54:53.5	7:54:53.4	-385.5	0.5	137.7	1010.5	1204.8	123.0
47	7:54:54.0	7:54:53.8	-388.2	1.1	152.8	982.5	1375.3	133.4
48	7:54:54.5	7:54:54.5	-387.3	-0.5	135.8	984.0	1112.0	112.2
49	7:54:55.0	7:54:55.0	-383.7	-0.7	138.0	477.4	577.7	124.3
50	7:54:55.5	7:54:55.5	-380.0	-0.2	115.0	434.5	515.1	122.5
51	7:54:56.0	7:54:56.0	-387.5	-0.5	131.8	486.7	620.1	127.0
52	7:54:56.5	7:54:56.5	-378.2	-0.3	117.4	510.4	661.2	128.2
53	7:54:57.0	7:54:57.1	-380.3	-0.3	80.0	475.5	475.5	83.2
54	7:54:57.5	7:54:57.8	-383.5	-0.3	61.0	388.8	475.1	130.2
55	7:54:58.0	7:54:58.1	-377.7	-0.5	73.2	409.7	470.1	92.2
56	7:54:58.5	7:54:58.6	-381.2	-0.4	62.5	381.0	444.0	125.4
57	7:54:59.0	7:54:59.3	-388.0	-0.1	157.0	554.4	707.5	138.0
58	7:54:59.5	7:54:59.3	-371.8	-0.7	138.5	563.7	757.8	138.3
59	7:55:00.0	7:55:00.0	-384.0	-0.3	153.0	562.4	695.2	134.0
60	7:55:00.5	7:55:00.5	-380.0	-0.3	132.2	552.1	664.0	125.3
61	7:55:01.0	7:55:01.0	-385.2	-0.1	100.2	524.9	677.0	129.3
62	7:55:01.5	7:55:01.5	-379.7	-0.1	87.5	480.0	517.0	117.2
63	7:55:02.0	7:55:02.0	-375.3	-0.3	100.8	525.4	653.0	126.2
64	7:55:02.5	7:55:02.5	-377.0	-0.0	88.3	489.8	572.5	120.4
65	7:55:03.0	7:55:03.0	-382.3	-0.1	158.1	486.1	720.3	127.9
66	7:55:03.5	7:55:03.5	-347.3	-0.1	166.8	432.2	601.6	125.9
67	7:55:04.0	7:55:04.0	-380.3	-0.1	155.0	501.0	650.0	130.4
68	7:55:04.5	7:55:04.5	-386.6	-0.0	80.7	353.7	434.1	125.4
69	7:55:05.0	7:55:05.0	-350.0	-0.3	73.0	357.0	381.4	110.6

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CB-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

878

DEC 13, 1980

MIC 85G SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
5	00:00.5	00:00.0	00.7	0.4	132.8	1605.3	1788.4	108.6
6	00:00.5	00:00.5	-02.0	-0.3	150.8	1632.1	1691.5	104.4
7	00:00.5	00:00.5	-02.0	1.4	118.7	920.6	1084.6	121.0
8	00:00.5	00:00.5	-02.0	-0.2	171.0	1043.8	1193.0	110.0
9	00:00.5	00:00.5	-02.0	0.2	158.0	1580.2	2034.4	129.0
10	00:00.5	00:00.5	-158.3	-0.7	122.0	813.2	930.8	103.8
11	00:00.5	00:00.5	-300.2	-1.3	170.0	802.2	1100.6	125.3
12	00:00.5	00:00.5	-184.7	-0.7	124.8	870.0	580.7	98.0
13	00:00.5	00:00.5	173.5	0.8	180.2	803.2	850.1	113.8
14	00:00.5	00:00.5	4.3	0.0	130.5	701.0	792.7	93.7
15	00:00.5	00:00.5	-351.2	-1.2	167.8	701.0	805.1	110.4
16	00:00.5	00:00.5	-13.2	-0.1	124.3	760.7	823.3	110.8
17	00:00.5	00:00.5	268.3	0.7	168.7	749.0	810.0	112.5
18	00:00.5	00:00.5	32.2	0.2	73.7	785.0	777.0	111.1
19	00:00.5	00:00.5	9.0	0.0	107.1	700.0	1070.0	108.0
20	00:00.5	00:00.5	3.7	0.0	77.6	830.0	871.8	107.0
21	00:00.5	00:00.5	-125.3	-0.7	103.2	782.7	923.8	122.1

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CB-9 (CONT)

TEST DATE: JUNE 23, 1980
 876
 MIC #50 SIDELINE SOUTH, GROUND

 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 180
 DEC 13, 1980

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25 F-W	6:28:34.5	6:28:33.8	35.5	0.1	143.0	660.3	795.8	122.7
26 F-W	6:29:10.0	6:29:09.2	-80.7	-0.2	178.3	819.7	822.3	108.1
27 F-W	6:31:43.0	6:31:42.3	-48.7	-0.2	149.5	743.1	805.9	112.8
28 F-W	6:33:50.5	6:33:58.8	-29.5	-0.1	177.9	775.4	849.1	114.0
29 F-W	6:36:51.5	6:36:50.0	-44.3	-0.3	95.8	700.8	711.0	99.7
30 F-W	6:38:48.0	6:38:47.3	74.8	0.3	122.8	775.0	799.7	101.1
31 F-W	6:41:35.6	6:41:34.8	-244.7	-1.5	98.4	728.7	740.0	100.9
32 F-W	6:43:41.5	6:43:40.8	232.0	1.1	119.3	711.7	840.7	122.2
33 DEPR	7:21:50.5	7:21:49.8	1203.7	7.8	88.3	777.4	853.0	65.7
34 ARRR	7:24:40.5	7:24:39.9	-923.2	-7.5	62.1	708.9	712.7	20.5
35 DEPR	7:28:50.5	7:28:49.8	1952.3	13.3	82.1	730.4	810.8	64.3
36 ARRR	7:31:34.0	7:31:33.4	-531.5	-4.9	61.3	681.1	681.7	92.5
37 DEPR	7:33:56.0	7:33:55.3	1746.0	11.6	24.0	747.6	789.2	71.3
38 DEPR	7:38:48.0	7:38:47.3	1750.5	11.5	85.1	714.1	758.5	70.9
40 ARRR	7:41:33.0	7:41:32.4	-711.2	-5.3	63.1	663.0	681.2	100.9
41 DEPR	7:46:07.0	7:46:06.3	1732.7	11.3	85.8	702.6	747.1	70.1
42 ARRR	7:49:12.5	7:49:11.9	-601.2	-5.0	63.7	688.2	744.1	102.2
43 DEPR	7:51:49.0	7:51:48.3	1714.0	11.6	82.4	720.8	764.9	70.4

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 02-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC #50 SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
44 ARR	7:54:53.0	7:54:52.4	-682.5	-6.2	81.6	665.1	665.3	98.6
45 TTTT	8:00:16.0	8:00:14.0	-330.3	-1.2	151.3	1129.0	1200.0	109.8
46 TTTT	8:02:50.0	8:02:50.3	125.5	0.5	137.7	1141.4	1334.6	121.2
47 TTTT	8:05:15.5	8:05:14.4	253.3	0.0	151.4	1106.5	1264.0	115.0
48 TTTT	8:08:22.0	8:08:22.0	-170.7	-0.7	130.4	1158.7	1430.0	125.0
49 TTTT	8:10:35.0	8:10:35.3	-183.7	-0.7	136.3	720.8	816.3	118.0
50 TTTT	8:13:20.5	8:13:20.3	-50.3	-0.3	115.0	666.3	738.0	115.6
51 TTTT	8:16:11.5	8:16:10.8	125.8	0.5	131.2	748.0	748.2	88.6
52 TTTT	8:19:10.5	8:19:10.8	-178.8	-0.8	117.4	741.4	859.0	120.3
53 TTTT	8:22:10.0	8:22:10.3	1781.0	10.0	82.4	727.4	750.3	75.8
54 TTTT	8:25:50.5	8:25:49.0	-604.5	-5.4	63.3	647.2	673.7	108.1
55 TTTT	8:28:22.5	8:28:24.3	1418.3	10.3	77.4	723.6	793.8	85.7
56 TTTT	8:41:37.0	8:41:36.5	-541.7	-4.0	63.0	683.1	627.8	87.0
57 TTTT	8:45:35.0	8:45:34.3	-12.3	-0.3	157.2	776.1	841.8	112.8
58 TTTT	8:48:20.0	8:48:20.0	-170.7	-0.7	138.4	717.2	850.2	123.4
59 TTTT	8:50:40.0	8:50:39.3	-204.5	-1.1	153.0	727.7	832.2	110.0
60 TTTT	8:53:20.5	8:53:20.8	373.2	1.0	135.6	760.6	826.5	113.0
61 TTTT	8:57:50.5	8:57:50.8	-90.0	-0.5	100.6	728.6	783.0	111.7
62 TTTT	9:00:00.0	9:00:00.3	-125.3	-0.3	87.4	714.8	740.5	105.3
63 TTTT	9:03:40.0	9:03:39.3	58.0	0.3	100.8	702.8	834.0	108.1
64 TTTT	9:10:13.5	9:10:12.7	-92.6	-0.6	88.0	727.8	884.4	124.6
65 TTTT	9:13:46.0	9:13:45.3	419.5	1.4	165.1	752.5	795.3	100.5
66 TTTT	9:16:13.0	9:16:12.1	19.0	0.1	155.6	747.2	1053.8	134.8
67 TTTT	9:18:36.0	9:18:35.3	347.3	1.3	166.8	732.1	845.3	120.0
68 TTTT	9:21:35.0	9:21:34.2	36.0	0.1	155.5	721.6	962.0	131.8
69 TTTT	9:26:30.0	9:26:29.4	-731.8	-5.8	70.2	648.1	653.5	97.7
70 TTTT	9:30:40.0	9:30:41.5	-544.0	-4.2	72.0	611.8	612.0	93.5

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C3 Summary
A-109 June 24, 1980
Flight Path Tracking Plots and Position Data

1. FLIGHT PATH TRACKING PLOTS

<u>Event No.</u>	<u>Plot Fig. No.</u>	<u>Operation</u>		
2	C3-1	1000 Ft. LFO	130 kts	Target Speed
3	"	"	"	"
4	"	"	"	"
5	C3-2	1500 Ft. LFO		
6	"	"		"
11	"	"		"
12	"	"		"
7	C3-3	700 Ft. LFO		
8	"	"		"
13	"	"		"
14	"	"		"
9	C3-4	300 Ft. LFO		
10	"	"		"
15	"	"		"
16	"	"		"
17	C3-5	500 Ft. LFO	130 kts	Target Speed
18	"	"	130 kts	"
19	"	"	130 kts	"
21	"	"	87 kts	Target Speed
22	"	"	87 kts	"
23	C3-6	Takeoff		
25	"	"		
27	"	"		
29	"	"		
31	"	"		
33	"	"		

<u>Event No.</u>	<u>Plot Fig. No.</u>	<u>Operation</u>		
24	C3-7			
26	"	Approach		
28	"	"		
30	"	"		
32	"	"		
34	"	"		
35	C3-8	Takeoff		
37	"	"		
39	"	"		
41	"	"		
36	C3-9	Approach		
38	"	"		
40	"	"		
64	"	"		
42	C3-10	1000 Ft. LFO	0.9 V _{NE}	Target Speed
43	"	"		
44	"	"		
45	"	"		
46	C3-11	500 Ft. LFO	87 kt	Target Speed
47	"	"	87 kt	"
48	"	"	145 kt	"
49	"	"	145 kt	"
50	"	"	145 kt	"
51	"	"	102 kt	"
52	C3-12	500 Ft. LFO	102 kt	Target Speed
53	"	"	102 kt	"
54	"	"	116 kt	"
55	"	"	116 kt	"
56	"	"	102 kt	"
57	"	"	116 kt	"

<u>Event No.</u>	<u>Plot Fig. No.</u>	<u>Operation</u>		
58	C3-13	500 Ft. LFO	116 kt	Target Speed
59	"	"	145 kt	"
60	"	"	145 kt	"
61	"	"	145 kt	"
62	"	"	130 kt	"
63	"	"	130 kt	"

2. POSITION DATA TABLES

<u>Table No.</u>	<u>Microphone</u>
C3-1	Mic. 1, Centerline Center, 4 ft.
C3-2	Mic. 2, Centerline West, 4 ft.
C3-3	Mic. 3, Centerline East, 4 ft.
C3-4	Mic. 4, Sideline North, 4 ft.
C3-5	Mic. 5, Sideline South, 4 ft.
C3-6	Mic. 6, Sideline North, 4 ft.
C3-7	Mic. 1G, Centerline Center, Ground
C3-8	Mic. 1H, Centerline Center, 33 ft.
C3-9	Mic. 5G, Sideline South, Ground

[illegible]

HELICOPTER

TEST DATE:

JUNE 24, 1968

EVENTS

2514

351-3

4.19C

DEVIATION FROM
CENTRAL LINE

FLYOVER PROFILE

1980
FBI
REFERENCE FILE

DISTANCE ALONG CENTERLINE

FIGURE C3-4

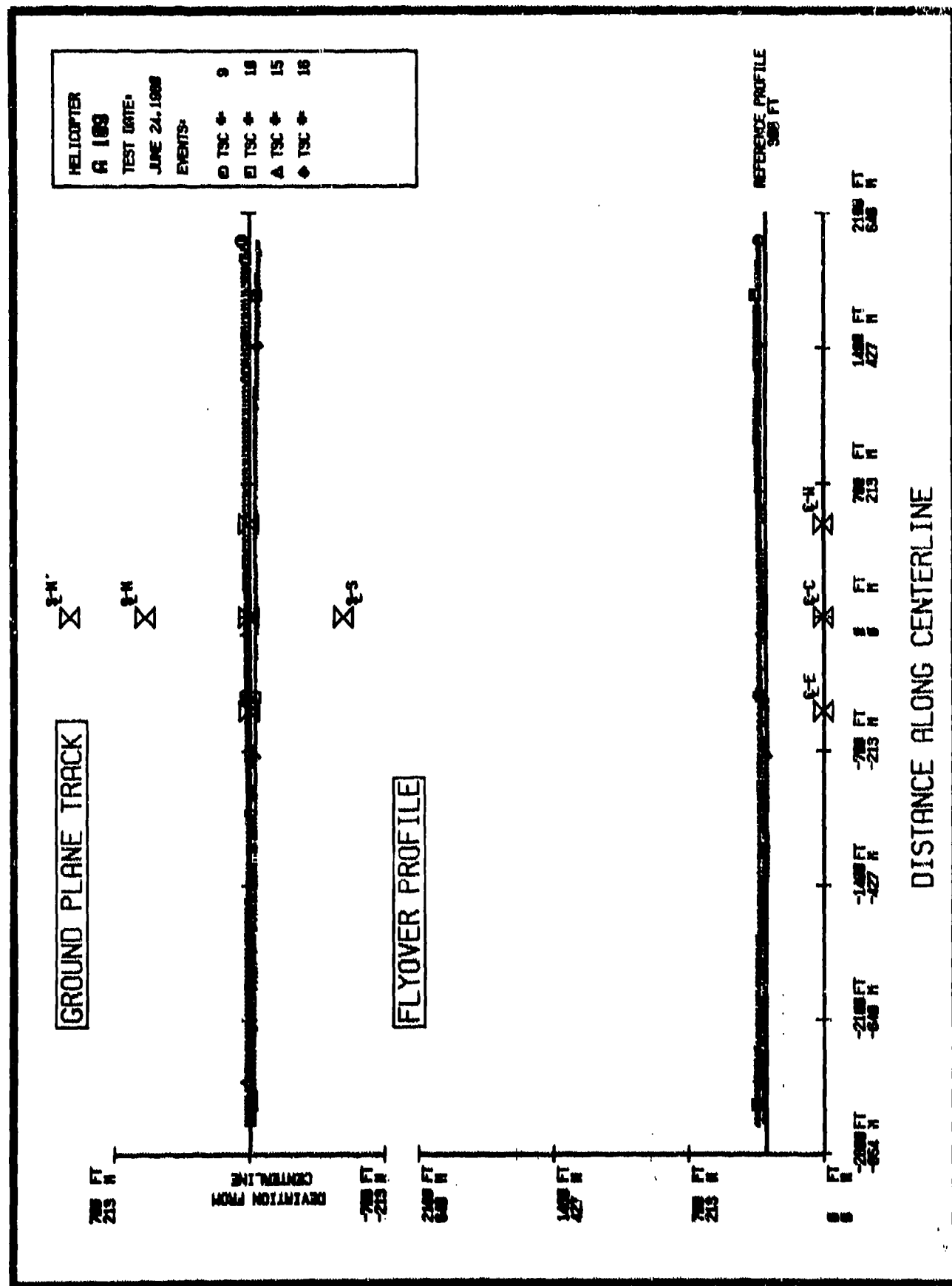


FIGURE C3-5

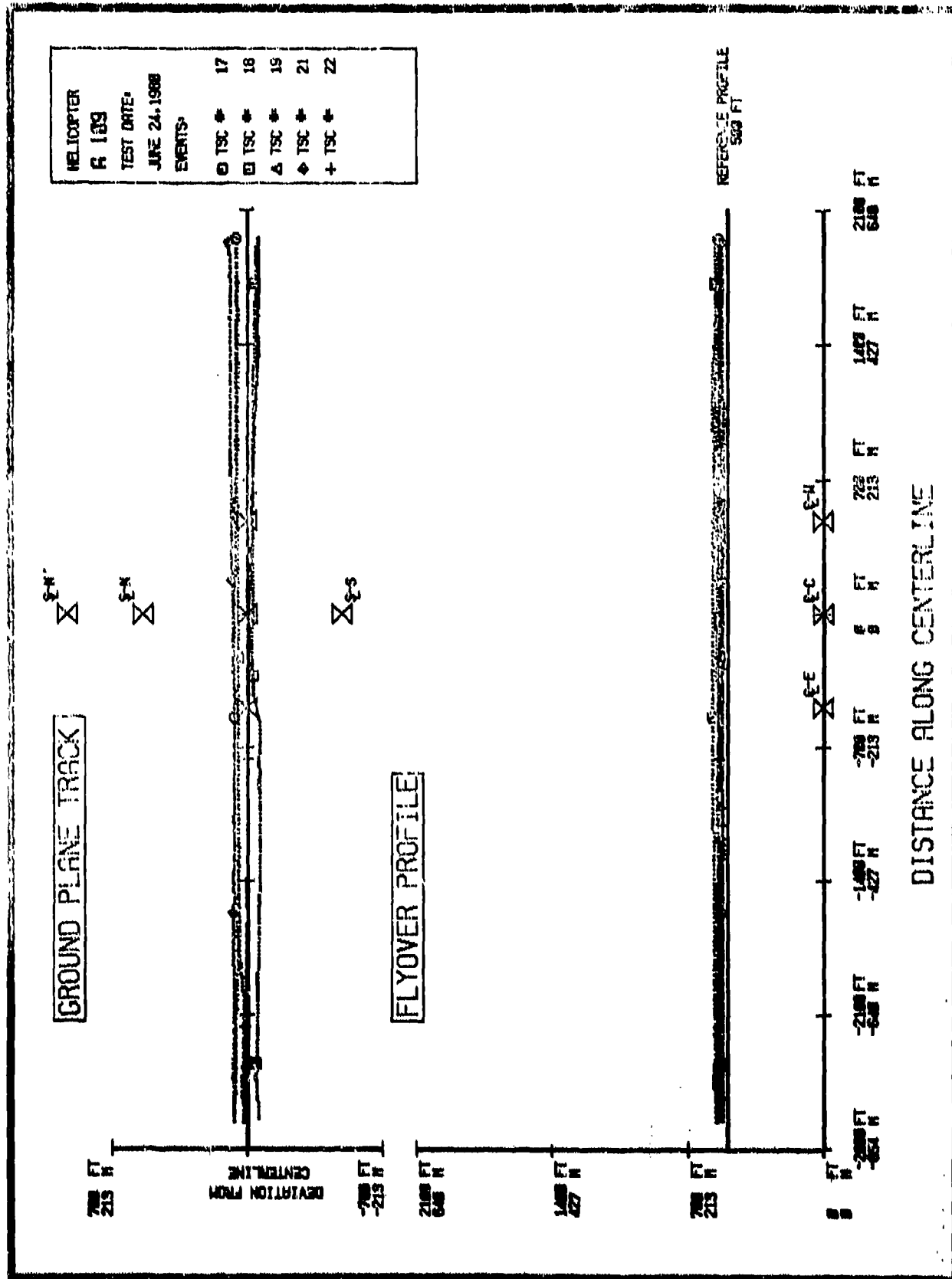


FIGURE C3-6

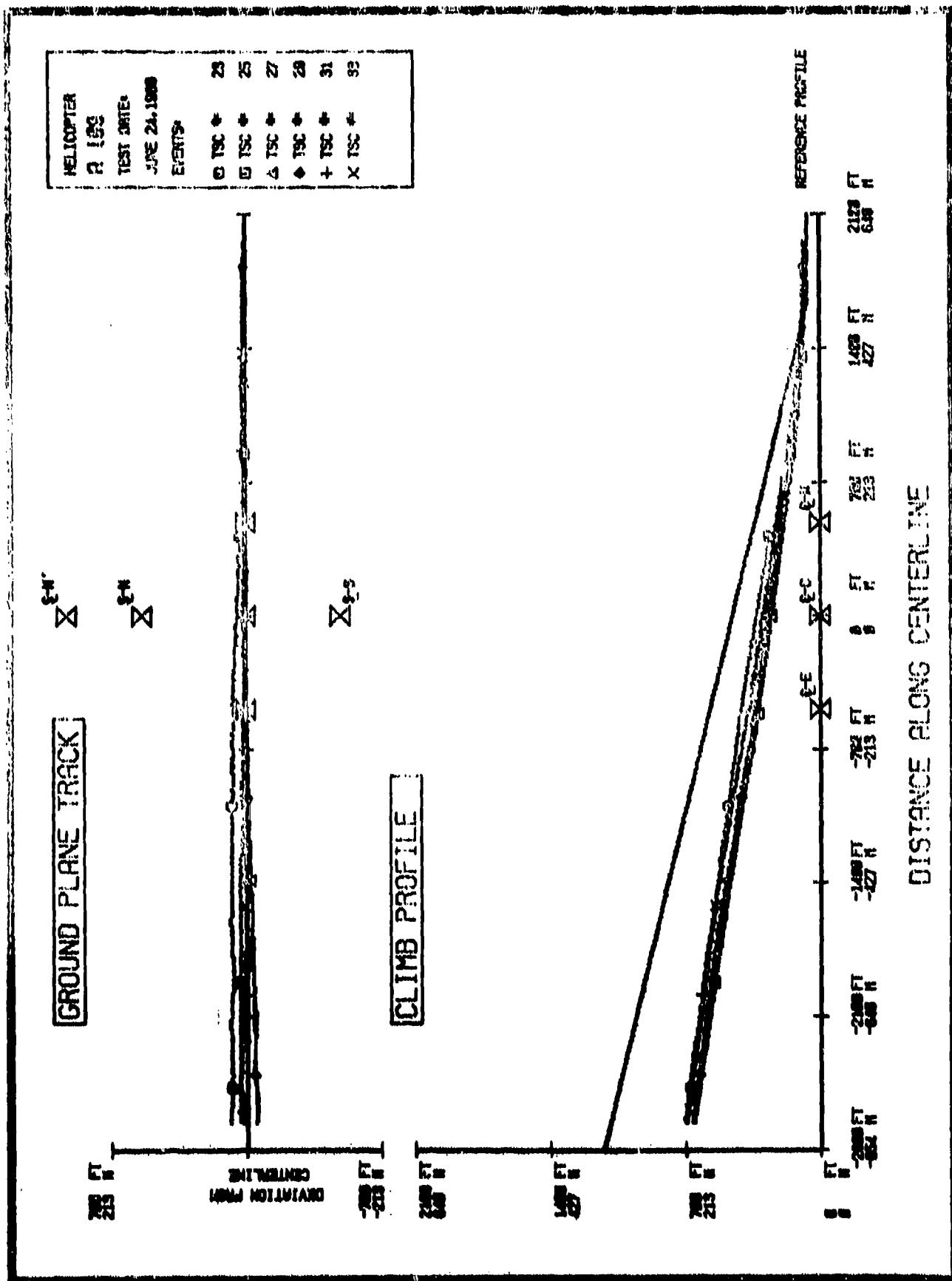
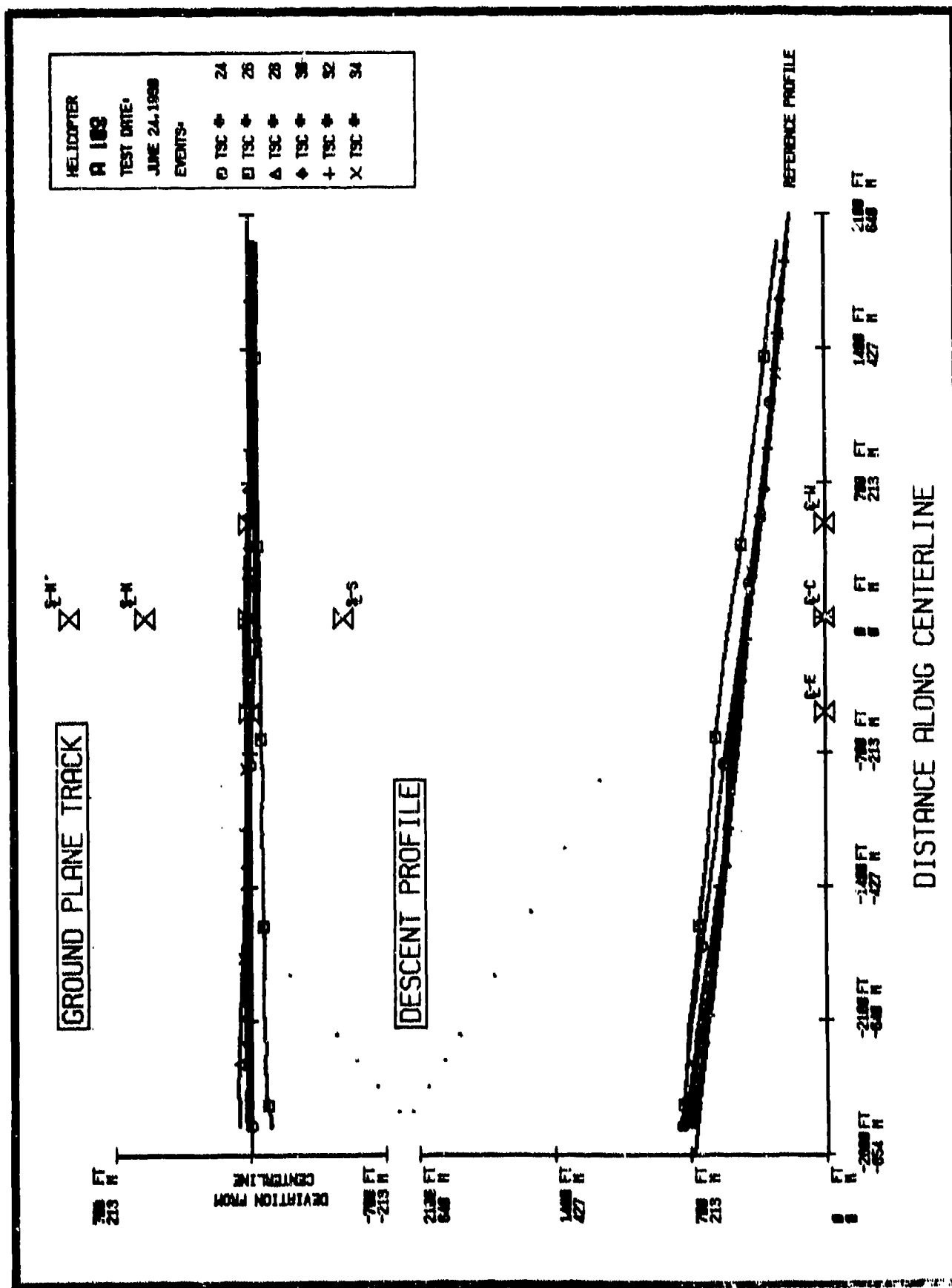


FIGURE C3-7



[illegible]

GROUND PLANE TRACK

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HELICOPTER

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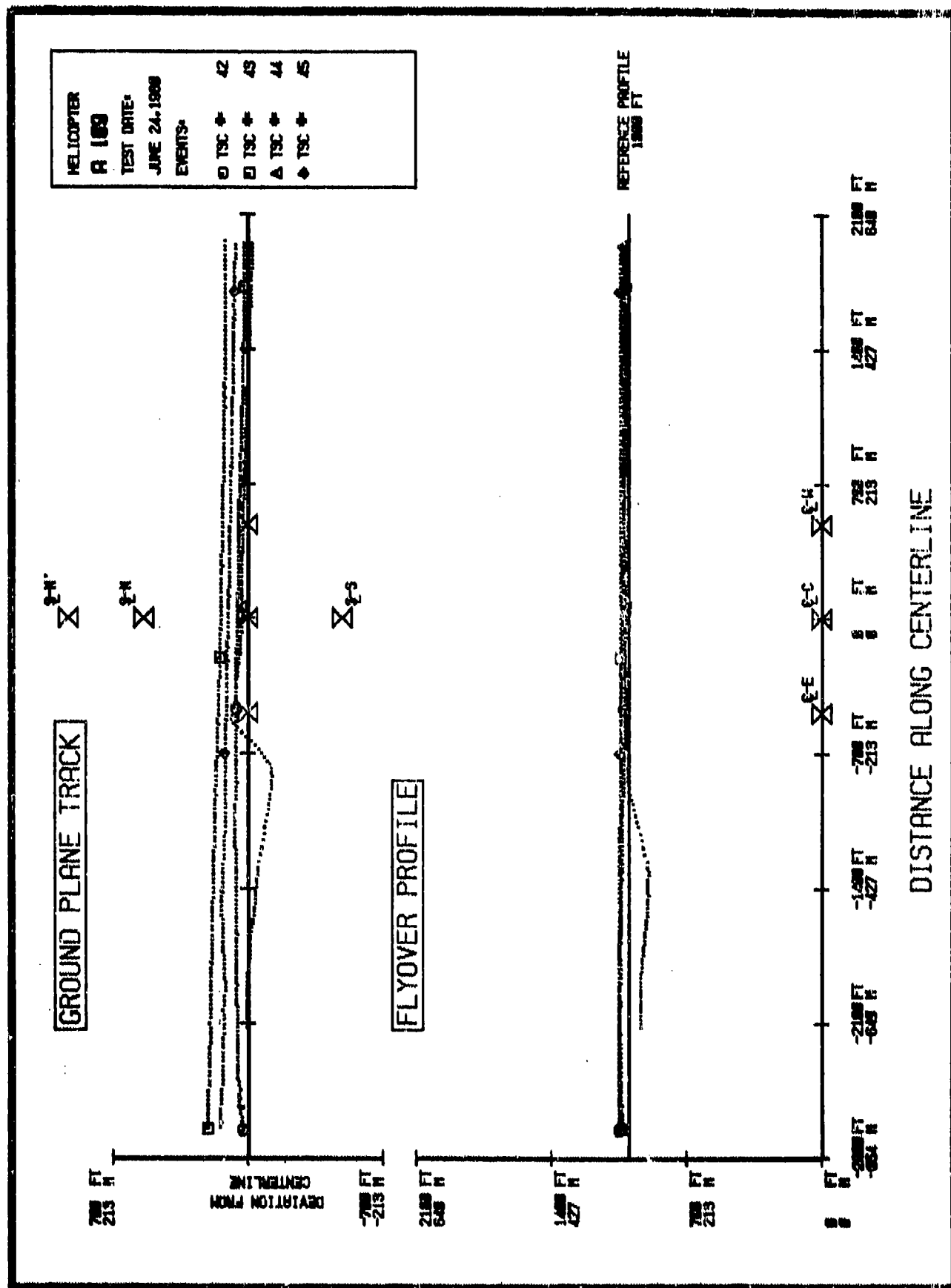
DESCENT PROFILE

✕

REFERENCE PROFILE

DISTANCE ALONG CENTERLINE

FIGURE C3-10



EVENTS	213	208	205	203
HELICOPTER	213	208	205	203
TEST DATE	213	208	205	203
JUNE 24, 1982	213	208	205	203
EVENTS	213	208	205	203
① TSC	213	208	205	203
② TSC	213	208	205	203
③ TSC	213	208	205	203
④ TSC	213	208	205	203
⑤ TSC	213	208	205	203
⑥ TSC	213	208	205	203

HELICOPTER	46
R 103	47
TEST DATE:	48
JUNE 24, 1952	49
EVENTS:	50
□ TSC #	51
□ TSC #	
△ TSC #	
◆ TSC #	
+ TSC #	
X TSC #	

FIGURE C3-13

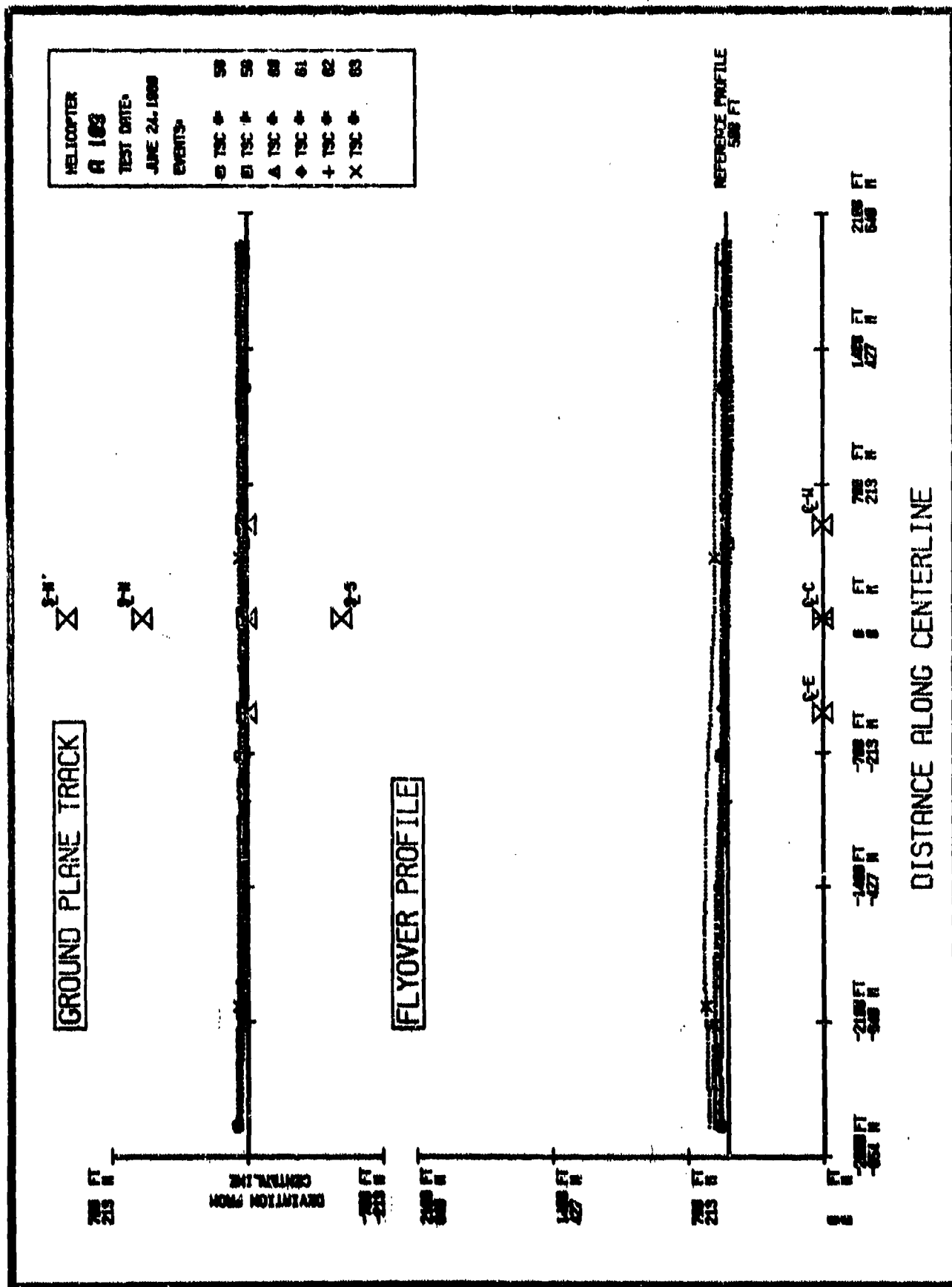


TABLE C3-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 180

A109

MAR 12, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
10	00:17:40.0	00:17:47.4	150.0	0.7	120.1	1038.4	1818.0	145.2
11	00:21:30.0	00:21:31.4	135.0	0.5	150.2	1023.4	1847.0	144.1
12	00:23:40.0	00:23:30.0	8.0	0.0	110.0	996.7	1083.0	113.0
13	00:28:00.0	00:28:00.0	64.0	0.0	144.2	1037.8	1848.2	117.6
14	00:30:00.0	00:30:07.0	205.7	0.0	130.1	1574.8	1731.5	114.0
15	00:34:10.0	00:34:18.8	113.0	0.5	119.1	721.8	801.7	115.0
16	00:38:00.0	00:38:01.0	101.0	-0.5	140.0	697.5	528.0	140.0
17	00:41:00.0	00:41:00.0	210.5	1.0	125.0	332.1	508.4	138.8
18	00:42:00.0	00:42:00.0	60.5	0.0	141.1	1630.1	3275.6	150.2
19	00:47:00.0	00:47:00.0	60.5	0.0	140.2	710.1	2253.7	101.5
20	00:49:00.0	00:49:00.0	207.0	1.0	110.7	723.3	1266.0	145.2
21	00:51:00.0	00:51:00.0	41.0	-0.1	140.0	325.3	1104.7	102.0
22	00:53:00.0	00:53:00.0	343.0	1.0	125.0	360.7	358.4	120.0
23	00:55:00.0	00:55:00.0	147.0	0.0	147.0	570.4	1718.5	100.0
24	00:58:00.0	00:58:00.0	110.4	0.0	110.4	550.5	1083.4	140.5
25	00:59:00.0	00:59:00.0	140.4	-0.1	140.4	550.5	848.4	140.3
26	01:00:00.0	01:00:00.0	104.7	-0.1	104.7	550.5	1014.7	104.0
27	01:00:00.0	01:00:00.0	103.0	0.7	88.5	550.5	550.0	117.0

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 03-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A100

MAR 12, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
24 ARR	7:48:46.0	7:48:46.0	-763.0	-7.8	54.8	408.4	478.0	121.1
25 DEP	7:52:57.5	7:52:57.3	-971.8	6.7	51.7	253.1	275.1	113.1
26 ARR	7:55:18.0	7:55:17.5	-798.3	-7.6	50.3	481.5	501.0	120.0
27 DEP	7:58:15.0	7:58:14.8	1148.2	-7.8	53.1	240.7	272.2	117.8
28 ARR	8:00:37.0	8:00:36.6	-861.3	-7.7	55.4	302.8	456.0	120.7
29 DEP	8:02:41.0	8:02:40.7	1114.0	-7.6	52.0	287.0	389.7	120.4
31 DEP	8:07:27.5	8:07:27.2	1220.8	8.1	55.0	282.7	326.3	120.0
32 ARR	8:09:48.5	8:09:48.1	-522.3	-5.1	52.2	305.7	425.8	127.4
33 DEP	8:11:48.0	8:11:47.7	1268.7	8.7	51.7	291.5	323.5	115.7
34 ARR	8:14:11.0	8:14:10.6	-773.0	-7.1	60.0	302.6	405.5	104.5
35 DEP	8:17:46.0	8:17:45.7	1000.5	-7.5	51.3	272.1	331.7	124.0
36 ARR	8:19:52.5	8:19:51.0	-742.3	-6.8	51.5	423.0	650.7	130.5
37 DEP	8:21:55.5	8:21:55.2	1182.5	-8.2	51.0	278.0	305.0	114.3
38 ARR	8:24:14.0	8:24:13.4	-610.0	-5.8	50.0	328.0	632.0	142.5
40 ARR	8:28:17.5	8:28:17.1	-708.5	-7.8	57.7	336.2	475.1	125.6
41 DEP	8:30:15.0	8:30:14.7	1177.2	-7.0	54.3	224.5	351.4	125.0
42 F-E	8:32:40.0	8:32:38.6	-248.5	-1.1	130.1	1010.7	1644.3	142.1
43 F-E	8:35:15.0	8:35:12.6	134.0	0.5	144.0	1040.8	2670.4	157.1
44 F-E	8:37:27.5	8:37:26.1	1524.7	0.1	141.8	1010.9	1526.5	140.4
45 F-E	8:39:53.5	8:39:51.3	-79.7	-0.3	141.0	1042.7	2508.6	155.4
46 F-E	8:42:38.5	8:42:36.0	19.2	0.1	80.2	518.0	576.7	116.1
47 F-E	8:44:55.0	8:44:54.5	-53.8	-0.3	97.6	551.0	602.5	112.6

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
02	0:17:56.0	0:17:56.0	24.8	0.1	118.9	1037.8	1139.7	114.4
03	0:21:00.0	0:20:58.1	-3.5	-0.0	153.0	1074.7	2150.0	150.0
04	0:23:43.0	0:23:42.0	60.7	0.3	117.6	887.9	1083.3	112.0
05	0:26:31.0	0:26:29.4	24.0	0.1	143.4	1625.3	1779.6	114.0
06	0:29:08.0	0:29:03.8	85.5	0.4	134.4	1581.3	2400.7	140.8
07	0:34:13.5	0:34:12.5	113.0	0.5	119.1	732.2	1167.1	140.7
08	0:38:28.5	0:38:27.8	56.7	0.2	140.6	330.8	751.2	153.1
09	0:38:28.5	0:38:28.8	229.3	1.0	124.5	330.1	405.4	123.2
10	0:40:50.0	0:40:50.0	41.2	0.2	141.1	1027.5	2289.5	145.7
11	0:40:50.0	0:40:54.1	153.8	0.5	148.5	704.5	2717.0	164.5
12	0:40:50.0	0:40:37.8	99.8	0.5	119.4	700.1	802.4	115.5
13	0:51:50.0	0:51:49.7	-95.7	-0.4	140.0	322.2	941.8	180.0
14	0:54:00.0	0:53:59.0	331.0	1.5	120.5	322.2	500.0	147.5
15	0:54:00.0	0:53:16.0	272.7	1.0	147.5	322.2	1010.0	146.1
16	0:58:45.0	0:58:44.5	145.5	0.7	120.7	540.2	586.0	110.0
17	1:02:10.0	1:02:17.5	-10.5	-0.0	146.3	540.7	1350.0	161.0
18	1:03:23.0	1:03:21.3	-73.0	-0.4	104.3	540.0	1950.0	164.6
19	1:06:32.0	1:06:31.5	-55.8	-0.4	22.8	587.4	588.7	116.4

REC. TIME: TIME PNLTW WAS RECORDED, RAD. TIME: TIME PNLTW WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTW WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 03-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 130

A100

MAR 12, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
24 ARR	7:48:51.0	7:48:50.8	-747.2	-7.6	55.3	342.5	432.8	127.7
25 DEP	7:52:54.0	7:52:53.8	1034.2	-7.4	78.7	194.2	214.6	115.2
26 ARR	7:55:53.5	7:55:53.1	-816.0	-7.2	58.8	400.5	459.8	117.0
27 DEP	7:58:11.5	7:58:11.3	1079.3	-7.5	81.2	178.4	212.1	122.8
28 ARR	8:00:42.5	8:00:42.2	-821.2	-8.0	58.0	327.7	389.9	117.6
29 DEP	8:02:38.0	8:02:37.8	1076.5	-7.5	80.2	203.8	218.8	110.1
30 ARR	8:05:28.0	8:05:25.7	-687.7	-6.6	52.7	323.7	391.1	124.1
31 DEP	8:07:24.0	8:07:24.3	1175.2	8.0	82.0	314.2	229.3	110.9
32 ARR	8:09:51.0	8:09:50.4	-503.0	-4.9	58.0	338.5	640.5	142.6
33 DEP	8:11:45.0	8:11:44.2	1178.7	-8.3	80.2	318.9	227.4	105.7
34 ARR	8:14:14.0	8:14:13.6	-726.3	-6.6	61.6	336.7	432.8	122.9
35 DEP	8:17:43.5	8:17:43.3	1108.5	-7.8	79.5	207.3	299.0	97.2
36 ARR	8:20:00.5	8:20:00.2	-855.0	-8.1	59.1	351.8	378.0	111.8
37 DEP	8:21:52.0	8:21:51.8	1213.5	8.5	79.7	209.3	235.8	117.3
38 ARR	8:24:21.5	8:24:21.0	-670.5	-6.3	69.0	336.3	403.2	123.5
39 DEP	8:26:23.0	8:26:22.7	-753.3	-7.3	59.1	321.4	381.7	122.8
40 ARR	8:28:12.0	8:28:11.8	1088.3	7.4	82.5	217.1	252.1	120.5
41 DEP	8:30:42.0	8:30:40.5	-252.5	-1.1	131.7	1005.1	1688.4	143.5
42 F-F	8:32:12.5	8:32:10.0	202.2	0.2	143.6	1031.0	2808.4	158.5
43 F-F	8:35:12.5	8:35:10.0	502.3	2.2	130.4	1023.5	1609.3	140.5
44 F-F	8:37:20.5	8:37:22.1	-70.7	-0.3	141.9	1040.9	1976.1	148.2
45 F-F	8:39:53.5	8:39:51.8	139.2	0.2	89.2	524.0	564.1	111.7
46 F-F	8:42:40.0	8:42:39.5	83.0	0.5	98.1	564.7	748.2	131.0
47 F-F	8:44:50.5	8:44:49.8						

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A100

MAR 12, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
48 F	8:53:26.5	8:53:26.1	372.0	1.5	138.2	492.8	1560.8	161.6
49 F	8:55:38.5	8:55:38.6	283.5	1.0	153.1	554.1	2138.5	165.0
50 F	8:57:57.5	8:57:58.0	-101.3	-0.4	143.2	472.4	1885.0	163.5
51 F	9:0:13.0	9:0:12.5	225.2	1.1	112.0	570.0	505.8	106.7
52 F	9:2:34.0	9:2:33.5	151.5	0.8	104.8	521.0	588.0	117.2
53 F	9:5:53.5	9:5:53.0	293.2	1.5	111.4	567.5	628.3	115.4
54 F	9:8:7.5	9:8:7.0	-86.8	-0.3	123.7	511.2	560.8	116.2
55 F	9:10:23.5	9:10:22.0	29.3	0.1	122.0	533.8	631.0	122.3
56 F	9:12:39.5	9:12:39.0	26.3	0.1	108.7	513.3	573.3	116.5
57 F	9:14:45.0	9:14:44.5	107.3	0.5	123.2	554.3	910.5	142.0
58 F	9:17:11.0	9:17:10.5	-34.8	-0.2	114.2	511.8	557.2	115.0
59 F	9:19:22.5	9:19:21.4	-21.2	-0.3	150.0	477.3	1305.4	153.6
60 F	9:21:35.5	9:21:34.5	-102.2	-0.4	140.8	515.8	1193.2	154.4
61 F	9:23:33.0	9:23:32.1	-138.8	-0.5	150.3	483.2	1037.7	152.2
62 F	9:27:48.5	9:27:47.0	-158.7	-0.6	139.3	555.2	976.1	145.9
64 ARR	9:30:3.0	9:30:2.6	-620.3	-5.8	60.4	326.6	424.2	120.7

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-3

POSITION DATA HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 180

A100

MAR 18, 1981

MIC # 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
2	8:17:47.0	8:17:45.5	60.0	0.3	120.1	1029.0	1730.0	143.7
3	8:18:11.0	8:18:08.4	54.0	0.0	153.0	1003.0	2981.7	158.5
4	8:18:35.0	8:18:33.7	-53.0	-0.3	117.0	998.0	1472.3	137.4
5	8:18:57.0	8:18:53.0	-46.0	-0.0	144.0	1654.0	3457.0	151.4
6	8:19:01.0	8:19:01.0	-09.0	-0.4	135.0	1585.1	2234.5	135.5
7	8:19:24.0	8:19:21.1	247.7	1.0	116.0	719.0	2100.5	160.0
8	8:19:38.0	8:19:33.0	-37.7	-0.0	140.5	324.7	547.0	142.4
9	8:19:51.0	8:19:48.0	42.3	0.0	120.1	321.0	870.7	158.4
10	8:20:11.0	8:20:08.5	108.0	0.1	140.0	1627.0	3420.0	151.6
11	8:20:47.0	8:20:43.0	-240.7	-0.0	140.4	710.0	1376.8	148.0
12	8:21:01.0	8:21:00.0	103.0	0.0	120.1	714.0	1181.4	142.8
13	8:21:11.0	8:21:08.1	140.0	0.0	120.7	327.0	481.5	137.1
14	8:21:21.0	8:21:18.5	51.0	0.0	127.8	292.1	576.1	149.5
15	8:21:31.0	8:21:28.5	67.0	0.0	147.0	572.0	1018.7	145.8
16	8:21:41.0	8:21:37.0	1.0	0.0	120.0	532.7	211.8	138.0
17	8:21:51.0	8:21:48.0	-15.0	-0.1	146.4	537.3	1505.7	150.1
18	8:22:01.0	8:21:57.0	-60.0	-0.0	103.5	521.6	1772.8	162.0
19	8:22:11.0	8:22:08.5	112.0	0.0	22.0	526.0	543.0	90.0

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED.
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE.
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH.
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED.
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE.

TABLE C3-3 (CONT)

		POSITION DATA									
TEST DATE: JUNE 24, 1980		HELICOPTER NOISE MEASUREMENT PROGRAM									
A109		FAA/AEE 120									
MIC # 3 CENTERLINE EAST, 4 FT		MAR 12, 1981									

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG			
24 ARR	7:48:44.0	7:48:43.6	-814.5	-8.3	55.0	475.2	477.5	84.4			
25 DEP	7:53:00.5	7:53:00.2	1095.5	-7.3	83.0	312.3	361.9	120.4			
26 ARR	7:55:18.5	7:55:18.0	-743.3	-7.1	58.7	548.7	540.4	04.3			
27 DEP	7:58:17.5	7:58:17.1	1401.0	9.4	83.3	319.0	412.0	120.4			
28 ARR	8:00:33.5	8:00:33.1	-758.8	-7.4	67.8	458.0	468.1	101.4			
29 DEP	8:02:44.0	8:02:43.7	1197.5	-7.9	85.0	399.0	399.9	123.4			
30 ARR	8:05:18.0	8:05:15.0	-151.0	-4.4	58.0	441.5	500.2	118.0			
31 DEP	8:07:31.0	8:07:30.7	1474.8	9.8	84.4	357.8	381.1	110.4			
32 ARR	8:09:44.5	8:09:44.1	-577.8	-5.5	59.1	428.8	474.3	115.3			
33 DEP	8:11:52.5	8:11:52.2	1341.3	9.1	88.8	368.5	368.7	01.0			
34 ARR	8:14:44.5	8:14:44.0	-581.0	-5.5	60.0	447.4	522.3	121.1			
35 DEP	8:17:40.5	8:17:40.2	1189.2	-8.0	93.3	340.2	389.9	119.2			
36 ARR	8:19:58.0	8:19:51.2	-750.3	-6.9	61.3	435.2	488.4	05.0			
37 DEP	8:22:00.0	8:21:59.7	1290.5	8.7	83.0	351.7	352.1	87.2			
38 ARR	8:24:11.5	8:24:11.1	-813.8	-7.6	60.2	480.3	514.0	124.0			
40 ARR	8:28:14.5	8:28:14.1	-889.7	-8.4	58.0	452.1	460.0	100.7			
41 DEP	8:30:13.0	8:30:17.0	1409.0	9.3	86.0	360.3	444.4	125.8			
42 ARR	8:32:37.0	8:32:35.4	-814.0	-9.0	100.4	1690.0	1613.6	145.0			
43 ARR	8:35:16.5	8:35:14.0	88.5	9.3	144.3	1048.5	2231.2	158.3			
45 ARR	8:39:56.5	8:39:54.5	-62.3	-9.0	142.1	1044.3	2254.2	152.4			
46 ARR	8:42:34.0	8:42:32.5	-62.2	-9.4	89.9	517.1	504.6	104.7			
47 ARR	8:44:58.5	8:44:58.0	117.3	0.7	97.8	559.2	581.4	101.8			

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

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TABLE 03-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
40	0:55:40.5	0:55:45.7	-100.5	-0.4	150.0	546.0	807.0	142.5
50	0:57:55.5	0:57:54.0	-150.3	-0.9	145.3	450.8	1000.0	154.5
51	0:0:13.0	0:0:17.5	-155.5	-0.3	111.3	536.0	827.0	111.0
52	0:2:20.0	0:2:28.5	-136.2	-0.7	104.6	511.7	546.0	110.1
53	0:5:50.5	0:5:50.0	-49.7	-0.2	111.4	571.0	588.1	103.0
55	0:10:20.0	0:10:22.5	-104.8	-0.8	122.2	538.1	585.0	108.0
56	0:12:34.5	0:12:34.0	-205.0	-1.4	108.0	583.0	551.4	108.2
57	0:14:40.5	0:14:48.0	-131.0	-0.6	122.7	588.1	971.0	144.2
58	0:17:00.0	0:17:05.5	-155.0	-0.3	112.0	581.0	508.5	111.0
59	0:19:28.5	0:19:25.4	-342.2	-1.3	150.0	501.1	1257.3	155.7
60	0:21:30.0	0:21:22.5	-122.0	-0.5	140.0	510.1	1603.7	161.5
61	0:23:37.0	0:23:36.1	-424.2	-1.2	140.7	515.5	1007.5	140.3
63	0:27:53.0	0:27:52.2	-380.3	-1.3	130.1	577.0	908.8	140.5
64	0:29:55.5	0:29:55.1	-506.2	-1.2	62.8	443.3	453.1	101.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
00	6:17:44.5	6:17:42.0	-154.7	-0.8	120.3	1170.2	2844.9	155.7
03	6:21:55.0	6:21:33.8	134.2	-0.5	152.6	1089.5	1410.0	129.4
04	6:23:32.0	6:23:20.7	6.7	-0.0	118.2	1115.8	2624.1	154.8
05	6:26:00.5	6:26:00.0	-1.7	-0.0	143.5	1576.8	2136.5	132.4
06	6:29:00.0	6:28:57.0	-162.5	-0.7	134.1	1680.8	3447.3	150.8
08	6:34:00.5	6:34:08.1	100.7	-0.5	119.4	836.5	1560.3	145.4
09	6:36:33.0	6:36:32.5	-47.0	-0.2	139.5	579.0	582.3	96.1
10	6:38:27.5	6:38:27.0	215.5	1.0	124.5	620.3	626.3	98.0
11	6:41:04.5	6:41:02.5	73.7	-0.3	139.6	1588.0	2295.0	134.7
12	6:47:05.0	6:47:04.1	-249.7	-0.0	149.4	827.0	1022.5	126.4
13	6:49:24.5	6:49:21.6	121.6	-0.6	117.3	900.5	3245.0	163.9
14	6:51:40.5	6:51:40.6	-145.2	-0.6	140.6	574.8	2192.0	164.8
15	6:53:55.5	6:53:54.0	-40.2	-0.2	127.8	605.2	1386.0	154.1
16	6:56:16.0	6:56:14.2	267.2	1.0	147.9	708.0	2076.3	160.1
17	6:58:36.0	6:58:34.3	0.7	-0.0	121.2	756.0	1971.2	157.4
18	7:02:24.5	7:02:20.7	-34.0	-0.1	145.8	696.0	875.4	127.3
21	7:13:37.5	7:13:36.0	-62.5	-0.3	104.3	667.1	1671.7	156.6
22	7:16:27.5	7:16:26.8	-57.8	-0.4	83.0	722.5	846.0	120.6

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 180
MAR 12, 1981

A109

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
24 ARR	7:48:43.5	7:48:42.7	-815.5	-2.3	55.1	898.7	860.5	125.7
25 DEP	7:52:58.6	7:52:56.0	-973.8	-6.8	59.2	548.1	618.5	118.0
26 ARR	7:55:18.5	7:55:17.8	-820.2	-7.8	59.4	723.2	769.7	109.9
27 DEP	7:58:14.5	7:58:14.0	1105.3	-7.5	83.1	540.0	589.0	113.3
28 ARR	8:00:40.5	8:00:40.0	-759.3	-7.4	58.0	611.7	622.2	79.4
29 DEP	8:03:40.5	8:03:40.0	1113.2	-7.5	59.1	557.0	625.5	117.1
30 ARR	8:05:51.0	8:05:50.5	-703.6	-7.5	59.4	621.7	622.3	86.6
31 DEP	8:07:26.0	8:07:25.4	1223.5	-8.2	84.0	561.7	701.0	126.7
32 ARR	8:09:51.0	8:09:50.5	-503.6	-4.0	58.0	621.7	623.0	94.8
33 DEP	8:11:47.0	8:11:46.4	1232.2	-3.5	81.7	557.4	648.1	120.7
34 ARR	8:14:13.0	8:14:12.4	-751.6	-3.0	81.3	626.5	634.6	80.0
35 DEP	8:17:45.0	8:17:44.4	1083.7	-3.5	81.0	540.0	653.8	124.0
36 ARR	8:19:52.0	8:19:51.3	-742.3	-3.8	81.5	629.0	603.0	127.2
37 DEP	8:21:54.5	8:21:53.0	1189.7	-3.1	80.0	585.0	634.1	117.0
38 ARR	8:24:13.0	8:24:12.2	-739.2	-7.0	59.3	620.4	680.4	135.5
39 DEP	8:26:14.5	8:26:13.0	1177.0	-7.7	82.8	636.3	773.8	124.0
40 ARR	8:28:15.0	8:28:14.5	-739.2	-7.0	82.8	568.3	648.5	118.8
41 DEP	8:30:14.5	8:30:13.0	1177.0	-7.7	82.8	636.3	773.8	124.0
42 ARR	8:32:15.0	8:32:14.5	-739.2	-7.0	82.8	568.3	648.5	118.8
43 TIME	8:35:20.5	8:35:19.3	-106.0	-0.7	144.1	1022.6	1386.7	128.2
44 TIME	8:35:20.5	8:35:19.3	-106.0	-0.7	144.1	1022.6	1386.7	128.2
45 TIME	8:39:53.0	8:39:52.7	-11.5	-0.0	142.5	1107.6	1488.7	131.0
46 TIME	8:42:53.0	8:42:52.7	13.3	0.1	80.3	703.4	825.7	121.6
47 TIME	8:44:53.0	8:44:52.8	87.0	0.5	98.5	693.9	1359.2	149.3

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-4 (CONT)

TEST DATE: JUNE 24, 1980 POSITION DATA HELICOPTER NOISE MEASUREMENT PROGRAM FAA/AEE 120
 A109 MAR 12, 1981
 MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
49 F-E	8:55:39.5	8:55:37.3	234.3	0.0	153.0	748.4	2405.0	162.6
50 F-E	8:57:57.0	8:57:55.0	-132.5	-0.5	143.3	632.4	1332.0	140.2
51 F-E	9:0:12.0	9:0:10.0	135.2	0.7	112.5	748.4	1216.0	142.0
52 F-E	9:5:55.0	9:5:54.2	158.5	0.8	111.1	740.8	908.9	125.4
53 F-E	9:10:25.0	9:10:24.2	53.8	0.2	122.9	724.5	922.3	122.2
54 F-E	9:12:36.0	9:12:35.3	-214.8	-1.1	105.0	609.2	821.2	121.6
55 F-E	9:14:48.0	9:14:47.1	105.2	0.5	123.2	724.7	976.0	122.4
56 F-E	9:17:7.5	9:17:6.8	-119.7	-0.6	112.8	651.6	830.0	123.6
57 F-E	9:19:27.0	9:19:26.3	351.7	1.3	150.8	625.1	913.0	122.7
58 F-E	9:21:36.5	9:21:35.6	-77.3	-0.2	142.6	714.8	2172.7	160.8
59 F-E	9:23:38.5	9:23:37.8	358.2	1.4	145.9	677.7	812.4	123.0
60 F-E	9:27:52.0	9:27:51.4	322.5	1.3	150.1	719.9	740.7	103.0
61 F-E	9:30:50.0	9:30:48.4	-261.7	-2.0	62.0	614.2	656.5	110.5

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

HELICOPTER POSITION DATA
NOISE MEASUREMENT PROGRAM

FAA/AEE 180
MAR 12 1981

A109

MIC # 5 SIDELINE SOUTH, 4 FT

[illegible]

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120
MAR 12, 1981

A109

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O PPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
24 ARR	7:48:48.0	7:48:47.5	-748.0	-7.6	55.0	617.1	622.5	97.5
25 DEP	7:52:58.0	7:52:57.5	-950.5	0.6	82.1	550.4	585.0	97.4
26 ARR	7:55:11.5	7:55:10.5	-473.5	-4.0	53.2	651.2	1165.8	146.0
27 DEP	7:58:14.0	7:58:13.4	1098.7	-7.4	82.8	554.4	638.8	119.8
28 ARR	8:00:35.0	8:00:34.3	-808.2	-7.8	58.2	647.3	707.7	125.8
29 DEP	8:02:39.5	8:02:38.0	1000.8	-7.4	82.6	588.4	690.7	128.5
30 ARR	8:05:16.0	8:05:15.1	-451.0	-4.4	58.0	624.6	1006.4	141.6
31 DEP	8:07:20.0	8:07:20.5	1271.2	-8.3	85.7	573.1	574.2	96.5
32 ARR	8:09:46.5	8:09:45.8	-500.0	-5.1	58.0	608.0	823.5	120.3
33 DEP	8:11:46.0	8:11:45.5	1270.3	-8.7	81.0	588.1	586.6	98.5
34 ARR	8:14:00.0	8:14:00.2	-520.0	-4.0	60.1	638.3	910.0	136.0
35 DEP	8:17:47.0	8:17:46.5	1127.0	-7.7	82.0	583.3	588.0	97.7
36 ARR	8:19:53.5	8:19:52.0	-782.8	-7.0	81.3	656.3	783.6	123.1
37 DEP	8:21:56.0	8:21:55.5	1213.7	-8.4	81.3	588.1	574.8	100.0
38 ARR	8:24:14.5	8:24:13.8	-565.3	-5.3	50.7	622.4	705.0	127.3
39 DEP	8:28:21.0	8:28:20.5	1231.7	-8.0	58.3	613.8	616.3	84.0
40 ARR	8:30:16.5	8:30:16.0	-1260.7	-8.3	85.5	538.4	562.5	91.0
41 DEP	8:32:39.5	8:32:37.0	1272.3	-1.2	130.8	1147.5	1843.0	141.5
42 TIME	8:35:00.0	8:35:00.0	804.0	0.0	143.8	1210.0	4768.0	165.3
43 TIME	8:37:30.0	8:37:28.0	1285.8	1.0	127.0	1107.4	1277.0	117.1
44 TIME	8:39:51.0	8:39:48.1	-102.0	-0.4	141.8	1108.2	3254.5	153.4
45 TIME	8:42:36.0	8:42:35.3	8.3	-0.0	80.4	725.0	813.0	118.0
46 TIME	8:44:55.0	8:44:54.3	-53.8	-0.3	97.6	736.3	834.4	107.4

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

A109

FAA/AEE 120

MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
010	00:55:40.0	00:55:40.0	-125.7	-0.1	152.1	755.1	1732.6	154.2
011	00:57:55.0	00:57:54.0	-150.3	-0.0	145.3	869.5	1747.4	157.5
012	00:59:00.0	00:59:00.0	-135.5	-1.2	118.1	778.0	838.9	112.3
013	00:59:00.0	00:59:00.0	-71.8	-0.4	105.1	725.0	882.5	132.4
014	00:59:00.0	00:59:00.0	-125.7	-0.4	111.4	770.5	840.1	113.5
015	00:59:00.0	00:59:00.0	-125.7	-0.7	110.8	733.2	913.7	128.8
016	00:59:00.0	00:59:00.0	-125.7	-0.2	122.0	722.2	932.2	128.6
017	00:59:00.0	00:59:00.0	-125.7	-1.2	102.0	724.0	986.8	131.5
018	00:59:00.0	00:59:00.0	-125.7	-0.4	123.4	726.8	1753.1	155.5
019	00:59:00.0	00:59:00.0	-125.7	-0.6	113.0	731.0	938.5	128.8
020	00:59:00.0	00:59:00.0	-125.7	-0.2	150.4	808.0	1280.0	148.8
021	00:59:00.0	00:59:00.0	-125.7	-0.3	149.4	714.0	1804.4	157.0
022	00:59:00.0	00:59:00.0	-125.7	-0.5	150.3	718.1	1710.9	155.3
023	00:59:00.0	00:59:00.0	-125.7	-0.4	150.2	771.7	1370.4	146.0
024	00:59:00.0	00:59:00.0	-125.7	-7.6	60.0	823.0	624.3	86.2

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120
MAR 12, 1981

A100

MID S 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
00	0:17:45.0	0:17:42.5	-123.2	-0.2	120.5	1398.1	2254.2	150.7
01	0:20:54.5	0:20:50.5	-157.5	-0.2	154.2	1267.8	4525.9	163.7
02	0:23:42.0	0:23:40.8	-17.0	-0.1	117.7	1370.1	1370.8	98.8
03	0:26:30.5	0:26:28.5	-1.7	-0.0	143.5	1242.0	2220.8	132.1
04	0:28:58.5	0:28:52.0	-115.2	-0.5	135.1	1222.4	4412.7	154.2
05	0:34:13.0	0:34:11.2	-174.3	-0.2	118.6	1196.1	1309.7	114.0
06	0:38:33.5	0:38:32.0	-37.7	-0.2	140.5	970.2	970.3	91.0
07	0:38:37.5	0:38:36.8	215.5	1.0	124.5	1019.0	1031.4	92.0
08	0:40:58.5	0:40:55.2	-70.5	-0.3	141.1	1075.8	3730.2	153.3
09	0:47:55.0	0:47:33.8	-249.7	-0.0	149.4	1117.2	1302.0	121.0
10	0:49:27.5	0:49:25.1	13.5	0.1	121.8	1215.1	2702.0	153.3
11	0:51:55.5	0:51:54.8	75.5	0.3	139.5	989.3	989.3	101.2
12	0:53:53.5	0:53:51.7	-241.0	-1.1	122.1	1208.0	2070.0	151.0
13	0:55:13.0	0:55:10.2	227.3	1.1	142.8	1032.0	3112.1	160.6
14	0:58:37.0	0:58:35.3	-22.7	-0.1	122.9	1105.0	1065.0	145.2
15	7:12:25.0	7:12:24.0	-80.7	-0.2	146.0	1032.0	1132.7	114.2
16	7:16:22.5	7:16:27.5	-105.2	-0.7	82.5	1072.3	1124.6	108.5

REC. TIME: TIME PNLTH WAS RECORDED. RAD. TIME: TIME PNLTH WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTH WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A100

MAR 12, 1981

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
24 ARR	7:48:47.0	7:48:46.1	-741.7	-7.6	55.0	1042.4	1059.8	100.4
25 DEP	7:52:53.5	7:52:52.4	1025.7	-7.4	78.2	957.0	1228.9	128.9
26 ARR	7:55:20.5	7:55:19.5	-910.3	-8.6	50.6	1002.9	1006.7	95.1
27 DEP	7:58:13.5	7:58:12.6	1079.7	-7.4	82.1	954.2	1044.1	113.9
28 ARR	8:00:37.5	8:00:36.6	-777.0	-7.5	58.5	989.3	1013.1	102.4
29 DEP	8:02:42.5	8:02:41.7	1131.7	-7.5	84.8	965.5	986.0	91.8
30 ARR	8:05:25.5	8:05:25.6	-654.8	-6.3	58.5	1064.4	1037.6	75.4
31 DEP	8:07:27.0	8:07:26.1	1200.9	-7.0	85.4	968.6	1015.1	107.8
32 ARR	8:09:45.5	8:09:44.4	-541.0	-5.2	52.8	1009.5	1122.7	122.7
33 DEP	8:11:47.0	8:11:46.1	1232.2	-5.5	81.7	958.6	1033.1	111.7
34 ARR	8:14:11.0	8:14:10.1	-773.0	-7.1	60.0	1007.0	1017.1	98.1
35 DEP	8:17:45.0	8:17:44.1	1023.7	-7.5	81.0	946.3	1033.2	113.7
36 ARR	8:19:56.5	8:19:55.6	-877.7	-8.2	60.2	1011.0	1012.4	92.9
37 DEP	8:21:53.5	8:21:52.5	1106.8	-8.4	80.3	871.2	1081.2	116.1
38 ARR	8:24:07.0	8:24:06.0	-963.2	-8.7	52.3	1006.7	1043.1	142.5
40 ARR	8:28:15.5	8:28:14.5	-814.8	-7.8	58.4	1021.3	1141.5	116.5
41 DEP	8:30:15.0	8:30:14.1	1177.2	-7.9	84.3	970.5	1016.2	106.7
43 F-E	8:35:20.0	8:35:18.5	152.7	0.6	144.1	1299.3	1669.1	128.9
45 F-E	8:39:47.5	8:39:43.7	-2.0	-0.0	141.1	1356.7	4304.7	162.0
46 F-E	8:42:36.5	8:42:35.5	19.2	0.1	69.2	1051.5	1097.4	106.6
47 F-E	8:44:50.0	8:44:48.6	87.0	0.5	98.6	1018.2	1583.4	140.0

REC. TIME: TIME PNLTW WAS RECORDED, RAD. TIME: TIME PNLTW WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTW WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
40 T T T	8:55:37.0	8:55:34.0	278.0	1.0	150.9	1055.7	3397.2	181.9
50 T T T	8:57:53.0	8:57:50.7	-127.5	-0.5	151.0	1047.0	2880.3	156.8
60 T T T	9:0:14.5	9:0:13.5	240.2	1.2	112.5	1079.7	1179.7	113.8
70 T T T	9:3:38.5	9:3:31.6	137.5	0.7	105.0	1043.3	1048.5	95.7
80 T T T	9:5:51.0	9:5:40.4	247.0	1.9	111.7	1074.0	1776.5	142.8
90 T T T	9:10:24.5	9:10:23.4	34.7	0.2	123.1	1071.0	1301.7	124.6
100 T T T	9:12:37.5	9:12:36.6	-115.5	-0.6	105.0	1047.4	1064.2	100.2
110 T T T	9:14:48.5	9:14:47.4	54.3	0.2	123.0	1111.1	1296.1	116.6
120 T T T	9:17:00.0	9:17:0.1	-122.3	-0.6	113.6	1038.2	1058.2	101.2
130 T T T	9:19:27.5	9:19:26.5	260.2	1.1	149.7	1041.0	1107.7	109.2
140 T T T	9:21:31.5	9:21:20.7	-90.5	-0.3	140.4	1065.6	2064.3	148.9
150 T T T	9:23:35.5	9:23:34.3	230.2	0.9	150.2	1029.0	1314.8	122.5
160 T T T	9:27:52.0	9:27:51.0	188.0	0.3	139.8	1051.8	1169.2	115.9
170 T T T	9:30:0.0	9:29:50.1	-220.5	-7.5	61.9	992.8	1009.6	98.4

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC #1G CENTERLINE CENTER, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
2 F-F-U	6:17:55.0	6:17:54.1	102.0	0.5	118.4	1040.4	1053.1	98.9
3 F-F-U	6:21:55.0	6:21:33.8	134.2	0.5	152.8	1027.3	1396.5	122.9
4 F-F-U	6:23:38.5	6:23:35.0	-40.0	-0.2	119.1	1000.7	1851.7	142.7
5 F-F-U	6:26:31.0	6:26:28.2	24.0	0.1	143.4	1841.5	2077.6	127.8
6 F-F-U	6:29:00.5	6:28:57.8	-177.0	-0.7	134.5	1578.2	3273.2	151.2
7 F-F-U	6:34:11.0	6:34:10.0	200.3	1.0	119.2	725.8	1154.1	141.0
8 F-F-U	6:36:31.5	6:36:31.0	-81.2	-0.2	140.0	341.5	532.4	140.1
9 F-F-U	6:38:28.6	6:38:25.8	212.5	1.0	125.8	336.1	508.5	138.4
10 F-F-U	6:41:01.5	6:40:58.0	108.3	0.4	140.8	1533.9	2005.2	145.2
11 F-F-U	6:41:01.5	6:40:58.0	108.3	0.4	140.8	1533.9	2005.2	145.2
12 F-F-U	6:47:04.0	6:47:03.0	-111.3	-0.4	150.1	720.1	1142.0	140.9
13 F-F-U	6:49:34.0	6:49:33.0	127.5	0.3	119.9	727.3	1084.1	137.9
14 F-F-U	6:51:54.5	6:51:54.1	50.2	0.2	139.4	328.3	465.0	134.9
15 F-F-U	6:53:58.0	6:53:58.0	347.3	1.5	127.5	313.6	530.4	143.7
16 F-F-U	6:55:20.0	6:55:18.2	165.5	0.6	147.7	574.4	902.1	140.5
17 F-F-U	6:58:40.5	6:58:39.7	70.5	0.3	118.0	554.5	879.7	140.9
18 F-F-U	7:02:24.0	7:02:23.3	-27.0	-0.1	148.4	542.1	845.0	140.1
19 F-F-U	7:13:35.5	7:13:33.7	-45.7	-0.2	104.2	531.3	2017.0	184.7
20 F-F-U	7:16:58.5	7:16:58.0	-105.2	-0.7	82.5	533.5	599.6	117.2

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-7 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC #1Q CENTERLINE CENTER, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
24 ARR	7:48:46.0	7:48:45.6	-763.0	-7.8	54.8	412.4	480.6	120.9
25 DEP	7:52:57.0	7:52:56.7	989.7	8.0	80.8	257.0	318.4	125.7
26 ARR	7:55:16.0	7:55:15.4	-739.8	-7.1	58.7	485.4	693.1	135.5
27 DEP	7:58:15.0	7:58:14.8	1148.8	7.8	83.1	244.7	275.4	117.3
28 ARR	8:00:37.0	8:00:36.8	-801.3	-7.7	58.4	396.8	481.1	120.6
29 DEP	8:02:40.5	8:02:40.2	1113.8	7.5	83.1	271.0	360.3	131.2
30 ARR	8:05:21.0	8:05:20.6	-774.2	-7.4	58.7	396.0	461.9	123.3
31 DEP	8:07:27.5	8:07:27.2	1220.8	8.1	85.0	286.7	389.5	119.5
32 ARR	8:09:45.5	8:09:44.9	-541.0	-5.2	58.8	329.7	728.5	147.7
33 DEP	8:11:48.0	8:11:47.7	1268.7	8.7	81.7	295.4	327.4	115.5
34 ARR	8:14:10.5	8:14:10.1	-759.7	-7.6	60.9	366.8	485.5	111.3
35 DEP	8:17:46.5	8:17:46.2	1106.8	7.8	81.7	278.0	299.8	112.9
36 ARR	8:19:53.0	8:19:52.5	-748.3	-8.0	61.3	486.9	612.1	135.8
37 DEP	8:21:55.0	8:21:54.7	1158.5	8.0	81.2	282.8	344.5	124.8
38 ARR	8:24:14.0	8:24:13.4	-619.0	-5.8	59.9	352.0	640.7	142.9
40 ARR	8:28:17.5	8:28:17.1	-798.5	-7.8	57.7	350.1	478.8	125.4
41 DEP	8:30:15.0	8:30:14.7	1177.8	7.9	84.3	283.5	354.3	125.5
42 F-W	8:32:40.5	8:32:39.1	-248.2	-1.1	130.9	1014.7	1549.0	139.1
43 F-W	8:35:15.0	8:35:12.8	134.0	0.5	144.0	1044.8	2680.9	157.1
44 F-W	8:37:27.5	8:37:26.1	1584.7	6.1	141.0	1014.9	1588.2	146.3
45 F-W	8:39:57.0	8:39:55.6	-69.7	-0.3	142.4	1046.7	1634.5	140.2
46 F-W	8:42:35.5	8:42:34.9	13.2	0.1	89.3	122.0	667.5	128.0
47 F-W	8:44:54.5	8:44:53.9	-105.8	-0.6	97.3	565.9	646.6	118.9

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-7

TEST DATE: JUNE 24, 1980
 A100
 MIC #10 CENTERLINE CENTER, GROUND

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
48	01:53:28.5	01:53:28.8	372.0	1.5	138.2	485.3	1001.2	151.0
49	01:55:43.0	01:55:41.8	-125.7	-0.5	154.4	551.0	1339.0	155.7
50	01:57:52.0	01:57:57.2	-84.3	-0.2	143.5	487.8	939.4	150.1
51	01:01:15.0	01:01:14.4	235.2	1.8	112.1	586.4	853.4	112.2
52	01:02:38.5	01:02:20.0	-22.2	-0.0	105.1	517.4	885.0	122.9
53	01:04:55.0	01:04:54.3	153.5	0.2	111.1	577.7	787.3	131.2
54	01:06:18.0	01:06:24.0	53.2	0.2	103.3	538.4	880.8	122.2
55	01:08:38.0	01:08:38.4	-214.2	-1.1	105.0	512.4	851.1	122.4
56	01:10:47.5	01:10:46.7	101.8	0.5	123.2	564.8	902.8	141.3
57	01:12:17.5	01:12:15.8	41.5	-0.5	113.1	518.2	837.7	141.2
58	01:14:28.5	01:14:24.0	225.5	-0.2	150.4	400.6	1134.9	154.4
59	01:16:34.5	01:16:33.7	-52.7	-0.2	150.7	522.1	937.3	148.2
60	01:18:34.5	01:18:33.5	102.2	0.4	150.1	400.4	1164.0	154.2
61	01:20:51.0	01:20:50.2	84.0	0.3	139.2	564.4	891.6	140.7
62	01:23:01.0	01:23:00.7	-220.5	-7.5	61.0	370.5	305.1	106.2

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109
MIC #1H CENTERLINE CENTER, 33FT

FAA/AEE 120
MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
00	0:17:50.0	0:17:48.8	230.2	1.1	110.0	1007.4	1005.4	141.1
03	0:21:4.5	0:21:3.2	146.7	0.5	152.5	1055.1	1400.2	134.1
04	0:23:36.5	0:23:35.1	-40.0	-0.2	116.1	087.7	1022.7	143.5
05	0:26:25.5	0:26:22.8	-15.8	-0.1	144.0	1000.2	3302.4	150.2
06	0:29:1.5	0:28:58.8	-24.2	-0.4	134.5	1545.3	3000.0	140.1
08	0:34:12.5	0:34:11.7	210.5	-1.0	118.4	602.0	202.7	123.1
09	0:36:32.0	0:36:31.6	-60.5	-0.3	140.0	308.5	400.5	131.1
11	0:41:0.5	0:40:57.7	87.3	0.4	141.1	1001.0	3120.7	140.2
13	0:47:0.0	0:47:4.2	-240.7	-0.0	140.4	687.3	900.5	130.2
14	0:49:33.5	0:49:32.5	174.5	0.8	110.0	604.4	1150.0	142.0
15	0:51:54.5	0:51:54.1	50.2	0.2	130.4	206.3	438.7	137.5
16	0:53:56.0	0:53:55.0	51.2	0.2	127.8	200.8	1126.0	165.8
17	0:58:16.5	0:58:14.0	244.3	0.0	147.7	541.7	1854.7	163.0
18	0:58:40.5	0:58:38.7	70.5	0.3	112.0	521.6	858.4	142.5
19	7:2:24.5	7:2:23.0	-34.0	-0.1	145.8	500.2	712.2	134.4
20	7:13:35.5	7:13:33.7	-45.7	-0.2	104.8	403.7	2007.0	165.6
22	7:16:28.5	7:16:28.0	-105.2	-0.7	82.5	500.5	567.7	118.2

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 03-8 (CONT)

TEST DATE: JUNE 24, 1980
 A100
 MIC #1H CENTERLINE CENTER, 33FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 180
 MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
24 ARR	7:48:46.0	7:48:45.6	-763.0	-7.8	54.8	379.7	449.6	188.4
25 DEP	7:52:57.5	7:52:57.3	971.8	8.7	81.7	224.2	249.2	115.9
26 ARR	7:55:16.0	7:55:15.4	-730.8	-7.1	58.7	453.1	688.2	137.1
27 DEP	7:58:15.0	7:58:14.8	1148.8	7.8	83.1	811.0	847.6	181.1
28 ARR	8:00:37.0	8:00:36.6	-801.3	-7.7	58.4	384.1	489.3	122.9
29 DEP	8:02:41.0	8:02:40.8	1114.0	7.5	83.9	838.3	885.7	123.5
31 DEP	8:07:27.5	8:07:27.2	1280.8	8.1	85.0	854.0	901.4	182.6
32 ARR	8:09:50.0	8:09:49.7	-1508.3	-4.9	58.3	356.8	381.0	110.6
33 DEP	8:11:48.5	8:11:48.3	1276.2	8.8	81.9	863.6	872.4	105.1
34 ARR	8:14:10.5	8:14:10.2	-759.8	-7.0	60.0	363.0	392.3	111.0
35 DEP	8:17:46.5	8:17:46.3	1106.8	7.6	81.7	849.5	870.5	115.0
36 ARR	8:19:53.0	8:19:52.5	-742.3	-6.9	61.3	394.4	584.3	137.6
37 DEP	8:21:55.5	8:21:55.3	1182.5	8.2	81.0	850.1	880.5	116.0
38 ARR	8:24:14.0	8:24:13.5	-619.0	-5.8	59.9	350.1	617.3	144.4
40 ARR	8:28:17.5	8:28:17.1	-792.5	-7.8	57.7	357.4	447.8	127.1
41 DEP	8:30:15.0	8:30:14.7	1177.8	7.9	84.3	855.8	929.4	129.1
42 F-E	8:32:30.5	8:32:30.0	-272.3	-1.2	130.6	981.7	1722.7	145.3
43 F-E	8:35:20.5	8:35:19.3	186.9	0.7	144.1	1012.1	1310.4	129.4
44 F-E	8:37:29.0	8:37:27.9	941.5	4.0	133.6	981.0	1267.7	139.2
45 F-E	8:40:03.0	8:40:02.1	45.5	0.2	141.4	1013.0	1061.4	72.8
46 F-E	8:42:35.5	8:42:34.9	139.2	0.1	89.3	489.0	639.3	130.1
47 F-E	8:44:55.0	8:44:54.5	-53.8	-0.3	97.6	533.2	580.4	113.3

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-8 (CONT)

TEST DATE: JUNE 24, 1980
 A109
 MIC #1H CENTERLINE CENTER, 33FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
40 T-T	0:55:45.5	0:55:44.0	-160.7	-0.6	151.5	512.0	662.0	128.4
50 T-T	0:57:50.0	0:57:57.0	-64.3	-0.3	143.5	434.8	910.4	151.8
51 T-T	0:0:14.0	0:0:19.3	234.7	1.2	112.8	553.6	741.3	131.7
52 T-T	0:0:30.5	0:0:20.0	-2.2	-0.0	105.1	424.4	637.6	130.6
53 T-T	0:0:55.0	0:0:54.0	153.5	-0.8	111.1	544.7	740.5	130.6
54 T-T	0:0:84.5	0:0:84.0	-133.8	-0.8	120.0	485.7	620.3	128.5
55 T-T	0:10:25.5	0:10:24.0	53.2	0.2	123.3	505.4	662.5	130.3
56 T-T	0:12:36.0	0:12:35.4	-214.2	-1.1	105.0	425.4	631.6	129.3
57 T-T	0:14:48.5	0:14:47.0	54.3	-0.2	123.0	531.8	700.7	130.6
58 T-T	0:17:08.0	0:17:07.5	-131.2	-0.7	112.5	485.0	587.7	124.4
59 T-T	0:19:24.0	0:19:22.7	112.3	-0.4	151.2	457.0	1422.3	151.2
60 T-T	0:21:35.5	0:21:32.5	-148.2	-0.2	148.7	489.1	1190.1	155.8
61 T-T	0:23:33.0	0:23:31.6	-136.8	-0.5	150.3	466.6	1604.7	163.1
62 T-T	0:27:51.5	0:27:50.3	-143.8	-0.6	140.1	531.5	750.5	135.6
63 T-T	0:29:59.5	0:29:59.2	-835.7	-7.6	62.0	346.7	389.5	114.3

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 180

A109

MAR 12, 1981

MIC #5G SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
22	0:17:51.5	0:17:50.2	269.5	1.3	110.4	1148.8	1480.5	129.1
23	0:21:00.5	0:20:58.1	18.2	0.1	153.8	1285.5	2663.6	151.1
24	0:23:36.5	0:23:35.0	-40.0	-0.2	116.1	1110.8	1732.9	140.1
25	0:26:31.0	0:26:29.0	24.0	0.1	143.4	1836.1	2234.6	124.7
26	0:29:00.5	0:29:04.7	150.2	0.8	133.4	1621.1	2034.1	127.2
27	0:34:12.5	0:34:11.6	210.5	1.0	118.4	863.8	1046.7	124.3
28	0:36:30.5	0:36:29.7	3.5	0.0	140.3	616.1	983.4	140.3
29	0:38:27.0	0:38:26.5	243.3	1.1	124.8	668.0	509.3	168.6
30	0:41:20.5	0:41:00.0	160.2	0.7	141.2	1812.0	2787.3	139.4
31	0:47:30.0	0:47:11.7	-78.7	-0.3	156.0	911.1	1525.2	143.3
32	0:49:33.0	0:49:31.8	207.5	1.0	119.7	851.6	1359.2	141.2
33	0:51:52.0	0:51:51.5	0.2	0.0	139.0	606.5	1180.0	147.2
34	0:53:50.0	0:53:55.4	305.2	1.3	127.6	558.7	656.5	121.7
35	0:56:19.5	0:56:18.5	211.2	0.8	147.7	798.8	1187.3	137.7
36	0:58:42.0	0:58:41.3	93.7	0.4	119.1	722.4	812.7	117.3
37	1:02:22.0	1:02:20.7	54.8	0.2	149.5	763.6	1494.6	140.3
38	1:13:36.5	1:13:34.8	-100.3	-0.2	104.5	774.2	1022.1	156.2
39	1:16:20.0	1:16:20.3	-120.2	-0.3	82.0	719.7	752.8	107.1

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120
MAR 12, 1981

A100

MIC #50 SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
24 ARR	7:48:46.0	7:48:45.4	-783.0	-7.8	64.8	819.7	878.4	113.6
25 DEPT	7:52:58.5	7:52:58.0	-973.8	-9.8	80.8	582.2	831.8	117.8
26 ARR	7:55:11.5	7:55:10.5	-1473.5	-14.8	80.8	654.1	1187.8	145.8
27 DEPT	7:58:14.0	7:58:13.4	1086.7	-7.4	82.8	556.8	846.0	119.7
28 ARR	8:00:35.0	8:00:34.3	-1086.2	-7.8	58.2	649.4	800.0	125.7
29 DEPT	8:02:49.5	8:02:49.0	1113.8	-7.8	83.1	584.3	819.4	114.4
30 ARR	8:05:19.5	8:05:18.7	-1455.3	-14.4	58.1	627.0	884.5	139.8
31 DEPT	8:07:27.0	8:07:26.1	1200.0	-7.0	85.4	575.1	838.1	115.3
32 ARR	8:09:47.0	8:09:46.3	-1538.8	-15.1	81.7	630.7	708.5	127.3
33 DEPT	8:11:47.0	8:11:46.4	1838.8	-15.1	81.7	538.0	880.1	118.8
34 ARR	8:14:4.5	8:14:3.8	-1581.0	-15.5	80.0	834.8	1038.7	148.8
35 DEPT	8:17:45.5	8:17:44.0	1101.2	-7.7	89.0	555.1	853.1	118.4
36 ARR	8:19:52.5	8:19:51.1	-1743.2	-17.2	81.5	658.8	851.0	125.3
37 DEPT	8:21:55.0	8:21:54.5	1158.5	-15.0	56.1	668.1	816.7	116.0
38 ARR	8:24:14.5	8:24:13.0	-1665.3	-15.3	59.7	684.0	797.1	127.2
39 DEPT	8:26:33.5	8:26:32.0	1844.4	-15.0	57.8	616.3	816.5	88.4
40 ARR	8:28:50.5	8:28:49.0	-1177.7	-11.7	62.3	570.4	616.5	118.1
41 DEPT	8:31:09.5	8:31:08.0	1277.0	-1.9	130.0	1151.0	1843.8	141.4
42 ARR	8:33:28.5	8:33:27.0	-1044.4	-10.4	143.0	1213.1	3590.0	166.0
43 DEPT	8:35:47.5	8:35:46.0	941.5	-4.0	133.6	1141.0	1348.3	180.2
44 ARR	8:38:06.5	8:38:05.0	-1022.0	-10.2	141.6	1199.6	3255.8	158.4
45 DEPT	8:40:25.5	8:40:24.0	88.0	-0.4	87.6	788.1	815.8	116.8
46 ARR	8:42:44.5	8:42:43.0	-55.0	-0.3	87.6	788.1	837.1	107.9

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-9 (CONT)

TEST DATE: JUNE 24, 1980
 A100
 MIC #56 SIDELINE SOUTH, GROUND

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
40 TTTT	00:53:27.5	00:53:26.7	394.7	1.5	144.5	709.0	947.8	131.5
40 TTTT	00:53:40.5	00:53:41.1	-86.8	-0.3	153.8	758.0	1506.8	151.7
40 TTTT	00:57:50.5	00:57:58.8	84.0	0.3	139.8	678.3	772.4	119.6
40 TTTT	00:01:00.0	00:01:14.3	235.5	1.2	112.1	770.0	841.7	112.3
40 TTTT	00:01:20.0	00:01:28.0	-71.8	-0.4	105.1	728.7	984.6	132.3
40 TTTT	00:01:30.0	00:01:35.8	50.8	0.3	111.0	773.5	818.3	107.8
40 TTTT	00:01:40.0	00:01:45.8	51.0	0.2	123.0	731.8	787.7	107.7
40 TTTT	00:01:50.0	00:01:54.7	-200.8	-1.1	108.0	726.8	907.5	126.8
40 TTTT	00:01:55.0	00:01:54.4	165.7	0.8	123.5	729.0	744.8	101.3
40 TTTT	00:01:57.0	00:01:57.0	-131.2	-0.7	112.5	733.8	825.6	117.3
40 TTTT	00:01:58.0	00:01:58.0	273.3	1.0	150.4	701.7	1146.6	142.3
40 TTTT	00:02:01.0	00:02:00.5	-52.7	-0.2	130.7	716.9	1087.0	138.8
40 TTTT	00:02:03.0	00:02:03.5	-136.8	-0.5	150.3	720.8	1720.2	155.2
40 TTTT	00:02:07.0	00:02:07.7	110.8	0.4	139.6	774.0	1502.9	140.0
40 TTTT	00:02:09.0	00:02:09.0	-759.2	-7.0	60.9	625.4	626.7	20.3

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C4 Summary
S76 June 25, 1980
Flight Path Tracking Plots and Position Data

Notes: 107% Main Rotor RPM

1. FLIGHT PATH TRACKING PLOTS

Event No.	Plot Fig No.	Operation			
10	C4-1	300 Ft. LFO	140 kts	Target Speed	
11	"	"	"	"	
16	"	"	"	"	
18	C4-2	500 Ft. LFO	109 kts	Target Speed	
19	"	"	"	"	
21	"	"	"	"	
22	"	"	"	"	
23	"	"	"	"	
25	"	"	124 kts	"	
26	C4-3	500 Ft. LFO	124 kts	Target Speed	
27	"	"	"	"	
28	"	"	"	"	
29	"	"	"	"	
31	C4-4	2500 Ft. LFO	140 kts	Target Speed	
32	"	"	"	"	
33	"	"	"	"	
34	C4-5	2000 Ft. LFO	140 kts	Target Speed	
35	"	"	"	"	
36	"	"	"	"	
37	"	"	"	"	
52	C4-6	1000 Ft. LFO	140 kts	Target Speed	
53	"	"	"	"	
54	"	"	"	"	
55	"	"	"	"	

Event No.	Plot Fig No.	Operation
40	C4-7	Approach
42	"	"
44	"	"
46	"	"
48	"	"
41	C4-8	Takeoff
43	"	"
47	"	"
49	"	"
51	"	"
1	C4-9	1000 Ft. LFO 140 kts Target Speed
2	"	" " "
3	"	" " "
4	"	" " "
5	C4-10	1500 Ft. LFO 140 kts Target Speed
7	"	" " "
13	"	" " "
38	"	" " "
39	"	" " "
8	C4-11	700 Ft. LFO 140 kts Target Speed
9	"	" " "
14	"	" " "
15	"	" " "

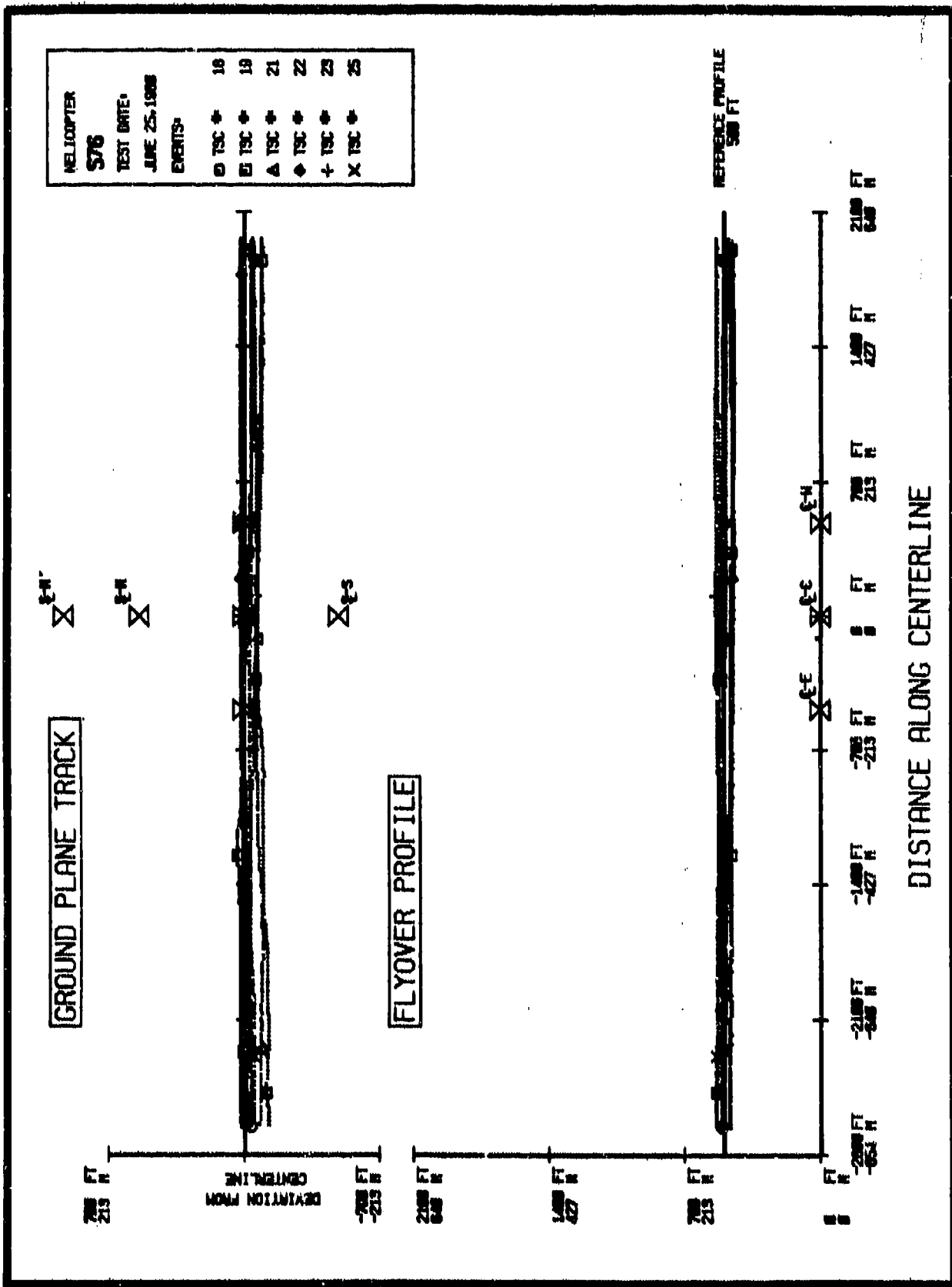
2. POSITION DATA TABLES

Table No.

Microphone

C4-1	Mic. 1, Centerline Center, 4 ft.
C4-2	Mic. 2, Centerline 150m West 4 ft.
C4-3	Mic. 3, Centerline 150m East 4 ft.
C4-4	Mic. 4, Sideline 164m North 4 ft.
C4-5	Mic. 5, Sideline 150m South 4 ft.
C4-6	Mic. 6, Sideline 284m North 4 ft.
C4-7	Mic. 1G, Centerline Center (Ground)
C4-8	Mic. 1H, Centerline Center 33 ft.
C4-9	Mic. 5G, Sideline 150m South (Ground)

TABLE C4-2



[illegible]

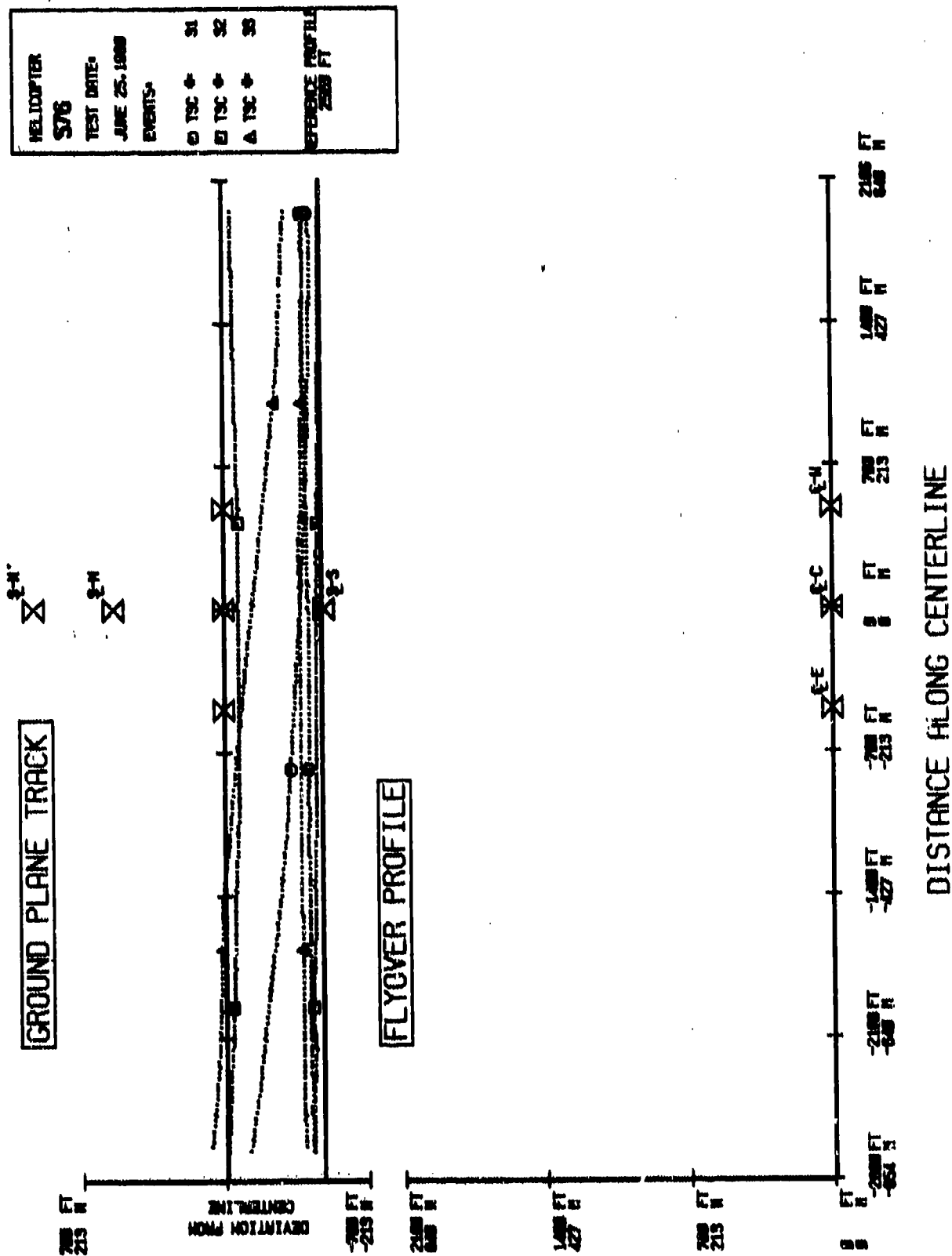
FLYOVER PROFILE

DISTANCE ALONG CENTERLINE

HELICOPTER					
576					
TEST DATE:					
JUNE 25, 1968					
EVENTS:					
① TSC #			26		
② TSC #			27		
△ TSC #			28		
◆ TSC #			29		

REFERENCE PROFILE
500 FT

4-70 SUBJECT



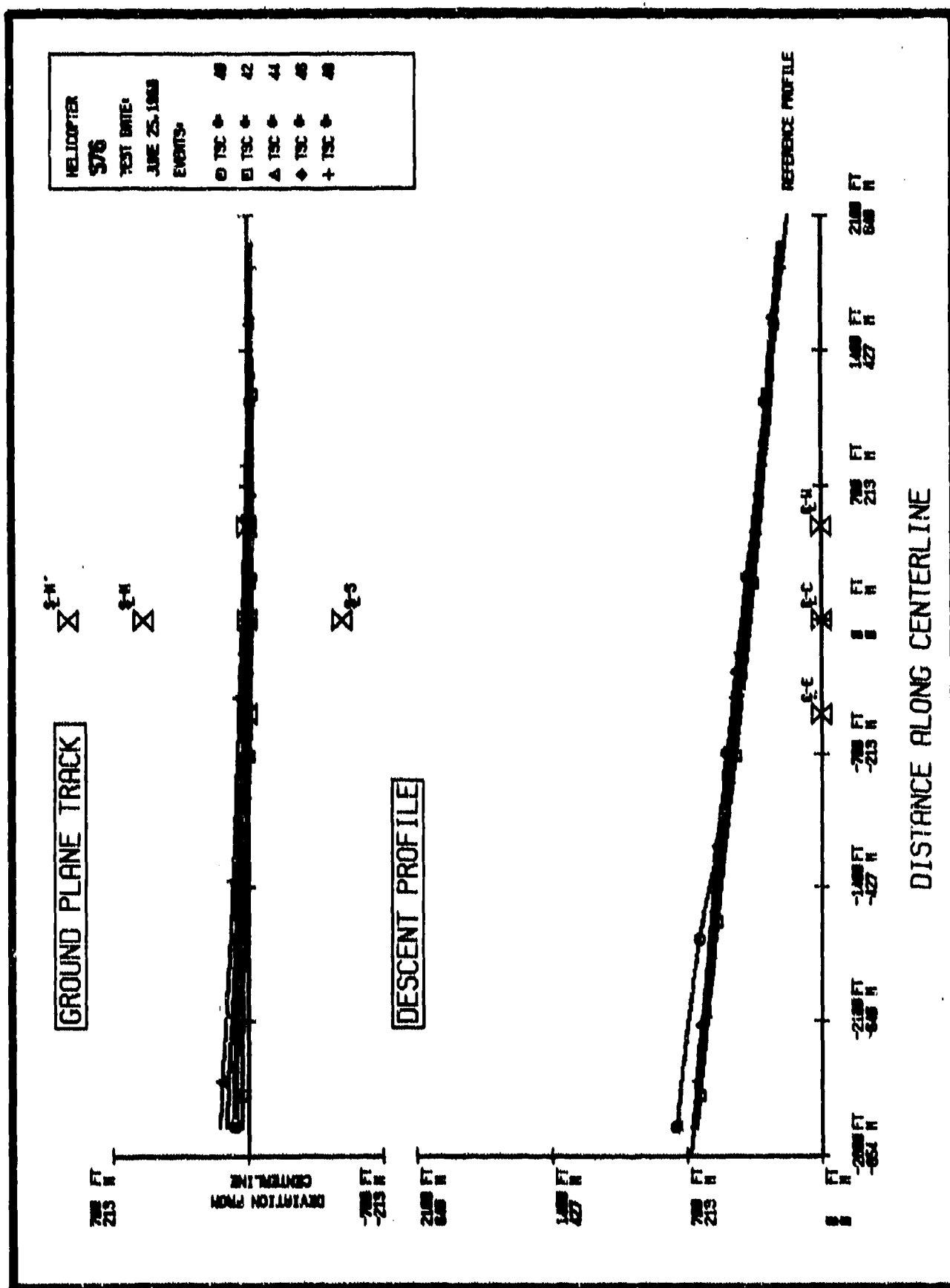
[illegible]

HELICOPTER					
S76					
TEST DATE:					
JUNE 25, 1988					
EVENTS:					
② TSC	•	34			
② TSC	•	35			
▲ TSC	•	36			
◆ TSC	•	37			

[illegible]

DISTANCE ALONG CENTERLINE

FIGURE C4-7



GROUND PLANE TRACK

DEVIATION FROM CENTERLINE
 700 FT 213 H
 -700 FT -213 H

CLIMB PROFILE

700 FT 213 H
 1400 FT 427 H
 2100 FT 840 H

HELICOPTER	TEST DATE	JUNE 25, 1968
S76	EVENTS	
	O TSC #	41
	D TSC #	43
	A TSC #	47
	+ TSC #	49
	+ TSC #	51

REFERENCE PROFILE

DISTANCE ALONG CENTERLINE

700 FT 213 H
 1400 FT 427 H
 2100 FT 840 H

HELICOPTER					
576					
TEST DATE:					
JUNE 25, 1968					
EVENTS:					
Ø TSC #				41	
□ TSC #				43	
△ TSC #				47	
◆ TSC #				49	
+ TSC #				51	

FIGURE C4-9

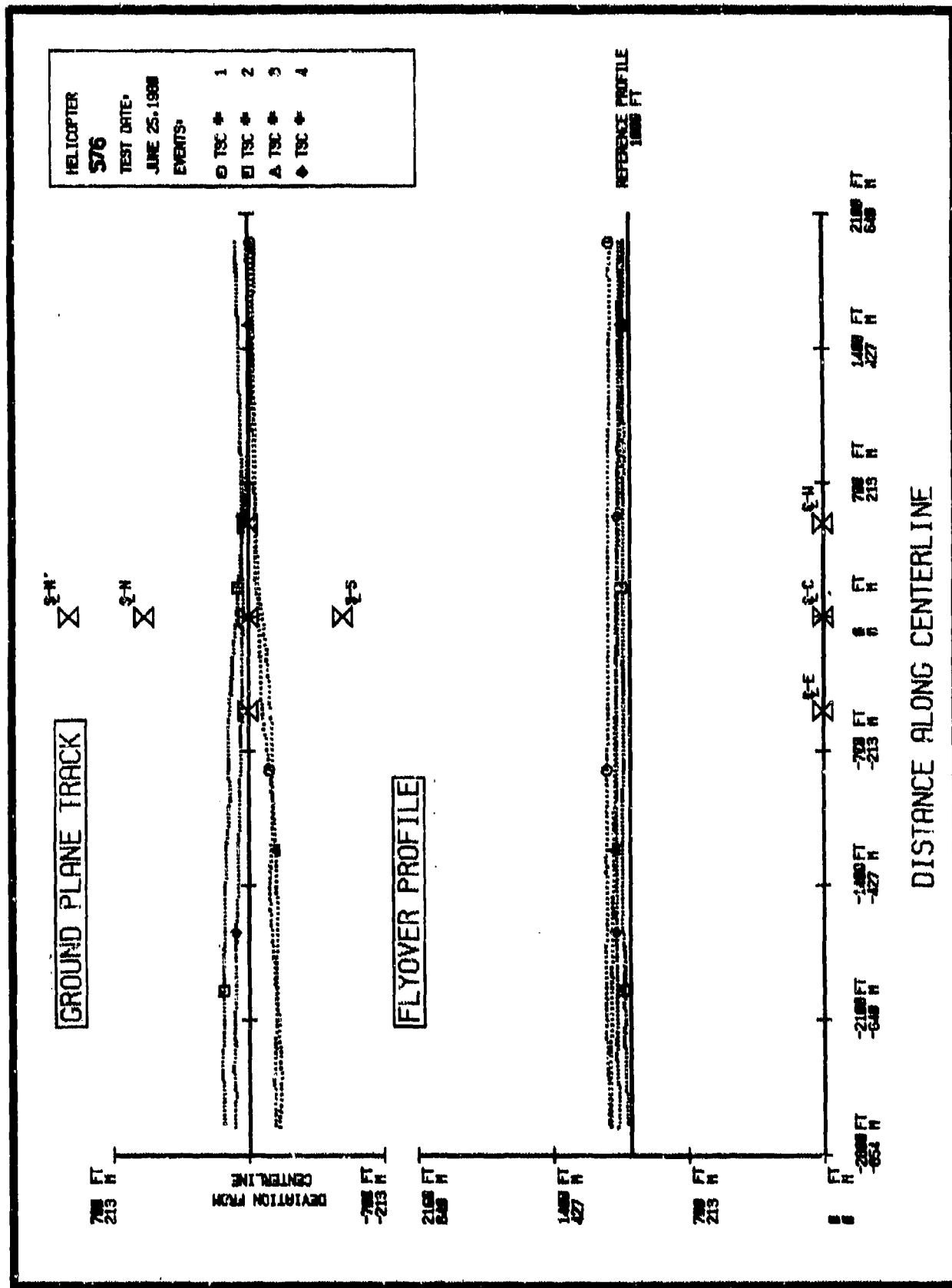


FIGURE C4-10

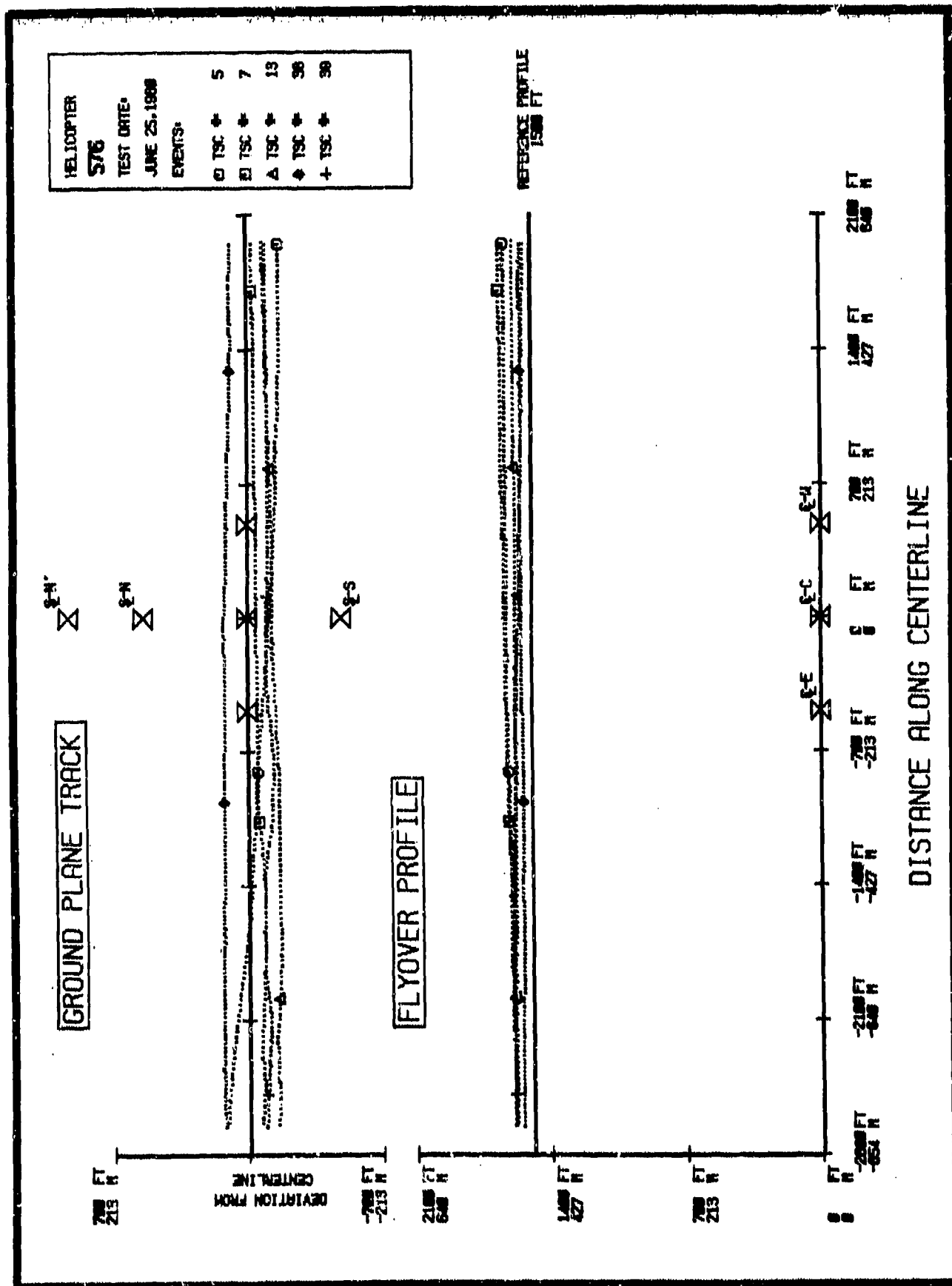


FIGURE C4-11

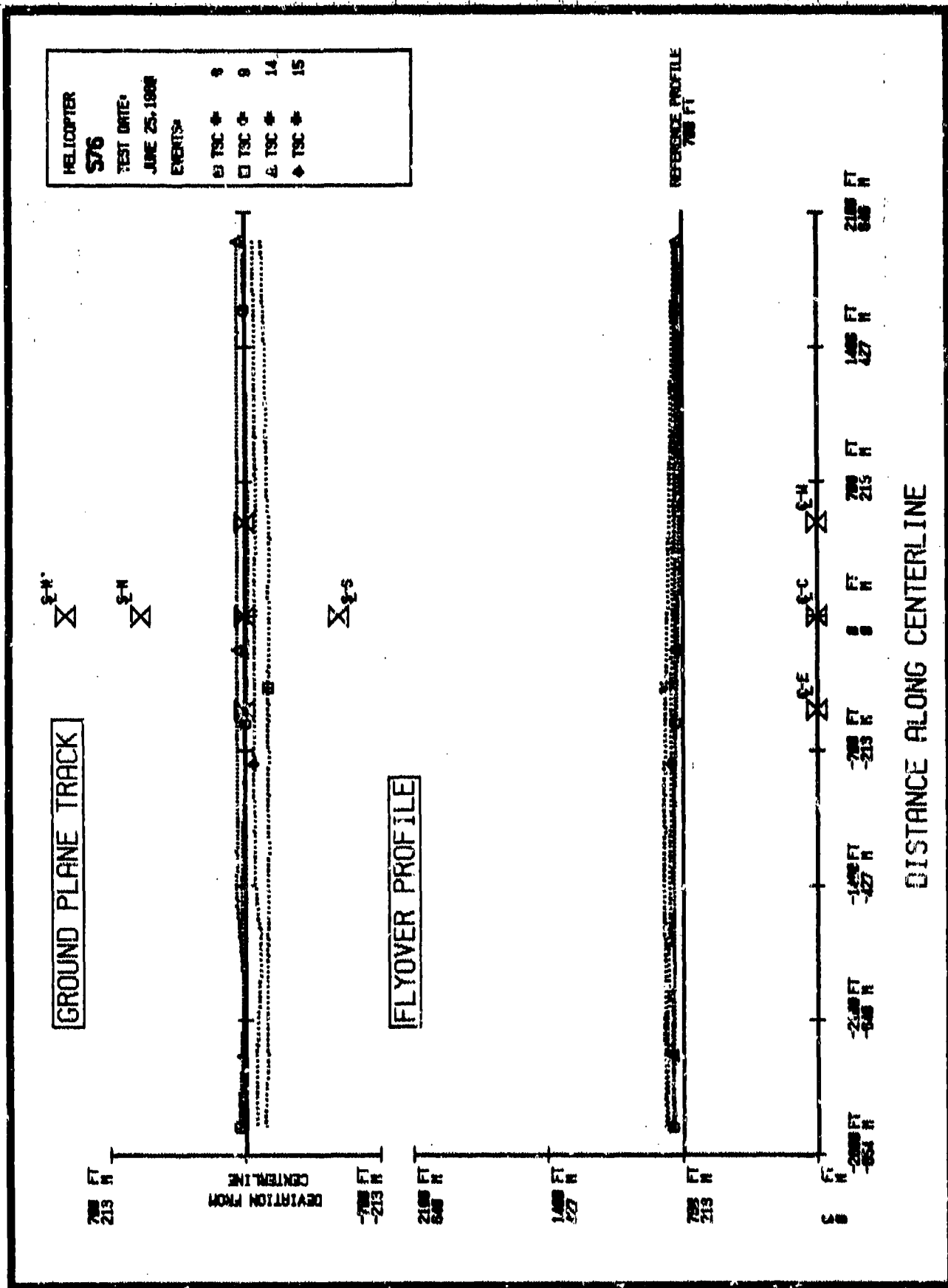


TABLE 04-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AKE 120

876

FEB 6, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	00:00:00.0	00:00:00.0	000.0	0.0	100.0	1100.1	1300.0	127.8
2	00:00:01.0	00:00:01.0	000.0	0.0	100.0	1100.1	1300.0	127.8
3	00:00:02.0	00:00:02.0	000.0	0.0	100.0	1100.1	1300.0	127.8
4	00:00:03.0	00:00:03.0	000.0	0.0	100.0	1100.1	1300.0	127.8
5	00:00:04.0	00:00:04.0	000.0	0.0	100.0	1100.1	1300.0	127.8
6	00:00:05.0	00:00:05.0	000.0	0.0	100.0	1100.1	1300.0	127.8
7	00:00:06.0	00:00:06.0	000.0	0.0	100.0	1100.1	1300.0	127.8
8	00:00:07.0	00:00:07.0	000.0	0.0	100.0	1100.1	1300.0	127.8
9	00:00:08.0	00:00:08.0	000.0	0.0	100.0	1100.1	1300.0	127.8
10	00:00:09.0	00:00:09.0	000.0	0.0	100.0	1100.1	1300.0	127.8
11	00:00:10.0	00:00:10.0	000.0	0.0	100.0	1100.1	1300.0	127.8
12	00:00:11.0	00:00:11.0	000.0	0.0	100.0	1100.1	1300.0	127.8
13	00:00:12.0	00:00:12.0	000.0	0.0	100.0	1100.1	1300.0	127.8
14	00:00:13.0	00:00:13.0	000.0	0.0	100.0	1100.1	1300.0	127.8
15	00:00:14.0	00:00:14.0	000.0	0.0	100.0	1100.1	1300.0	127.8
16	00:00:15.0	00:00:15.0	000.0	0.0	100.0	1100.1	1300.0	127.8
17	00:00:16.0	00:00:16.0	000.0	0.0	100.0	1100.1	1300.0	127.8
18	00:00:17.0	00:00:17.0	000.0	0.0	100.0	1100.1	1300.0	127.8
19	00:00:18.0	00:00:18.0	000.0	0.0	100.0	1100.1	1300.0	127.8
20	00:00:19.0	00:00:19.0	000.0	0.0	100.0	1100.1	1300.0	127.8
21	00:00:20.0	00:00:20.0	000.0	0.0	100.0	1100.1	1300.0	127.8
22	00:00:21.0	00:00:21.0	000.0	0.0	100.0	1100.1	1300.0	127.8
23	00:00:22.0	00:00:22.0	000.0	0.0	100.0	1100.1	1300.0	127.8
24	00:00:23.0	00:00:23.0	000.0	0.0	100.0	1100.1	1300.0	127.8
25	00:00:24.0	00:00:24.0	000.0	0.0	100.0	1100.1	1300.0	127.8
26	00:00:25.0	00:00:25.0	000.0	0.0	100.0	1100.1	1300.0	127.8
27	00:00:26.0	00:00:26.0	000.0	0.0	100.0	1100.1	1300.0	127.8
28	00:00:27.0	00:00:27.0	000.0	0.0	100.0	1100.1	1300.0	127.8
29	00:00:28.0	00:00:28.0	000.0	0.0	100.0	1100.1	1300.0	127.8
30	00:00:29.0	00:00:29.0	000.0	0.0	100.0	1100.1	1300.0	127.8
31	00:00:30.0	00:00:30.0	000.0	0.0	100.0	1100.1	1300.0	127.8
32	00:00:31.0	00:00:31.0	000.0	0.0	100.0	1100.1	1300.0	127.8
33	00:00:32.0	00:00:32.0	000.0	0.0	100.0	1100.1	1300.0	127.8
34	00:00:33.0	00:00:33.0	000.0	0.0	100.0	1100.1	1300.0	127.8
35	00:00:34.0	00:00:34.0	000.0	0.0	100.0	1100.1	1300.0	127.8
36	00:00:35.0	00:00:35.0	000.0	0.0	100.0	1100.1	1300.0	127.8
37	00:00:36.0	00:00:36.0	000.0	0.0	100.0	1100.1	1300.0	127.8
38	00:00:37.0	00:00:37.0	000.0	0.0	100.0	1100.1	1300.0	127.8
39	00:00:38.0	00:00:38.0	000.0	0.0	100.0	1100.1	1300.0	127.8
40	00:00:39.0	00:00:39.0	000.0	0.0	100.0	1100.1	1300.0	127.8
41	00:00:40.0	00:00:40.0	000.0	0.0	100.0	1100.1	1300.0	127.8
42	00:00:41.0	00:00:41.0	000.0	0.0	100.0	1100.1	1300.0	127.8
43	00:00:42.0	00:00:42.0	000.0	0.0	100.0	1100.1	1300.0	127.8
44	00:00:43.0	00:00:43.0	000.0	0.0	100.0	1100.1	1300.0	127.8
45	00:00:44.0	00:00:44.0	000.0	0.0	100.0	1100.1	1300.0	127.8
46	00:00:45.0	00:00:45.0	000.0	0.0	100.0	1100.1	1300.0	127.8
47	00:00:46.0	00:00:46.0	000.0	0.0	100.0	1100.1	1300.0	127.8
48	00:00:47.0	00:00:47.0	000.0	0.0	100.0	1100.1	1300.0	127.8
49	00:00:48.0	00:00:48.0	000.0	0.0	100.0	1100.1	1300.0	127.8
50	00:00:49.0	00:00:49.0	000.0	0.0	100.0	1100.1	1300.0	127.8
51	00:00:50.0	00:00:50.0	000.0	0.0	100.0	1100.1	1300.0	127.8
52	00:00:51.0	00:00:51.0	000.0	0.0	100.0	1100.1	1300.0	127.8
53	00:00:52.0	00:00:52.0	000.0	0.0	100.0	1100.1	1300.0	127.8
54	00:00:53.0	00:00:53.0	000.0	0.0	100.0	1100.1	1300.0	127.8
55	00:00:54.0	00:00:54.0	000.0	0.0	100.0	1100.1	1300.0	127.8
56	00:00:55.0	00:00:55.0	000.0	0.0	100.0	1100.1	1300.0	127.8
57	00:00:56.0	00:00:56.0	000.0	0.0	100.0	1100.1	1300.0	127.8
58	00:00:57.0	00:00:57.0	000.0	0.0	100.0	1100.1	1300.0	127.8
59	00:00:58.0	00:00:58.0	000.0	0.0	100.0	1100.1	1300.0	127.8
60	00:00:59.0	00:00:59.0	000.0	0.0	100.0	1100.1	1300.0	127.8
61	00:01:00.0	00:01:00.0	000.0	0.0	100.0	1100.1	1300.0	127.8

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-1. (CONT)

TEST DATE: JUNE 25, 1980			POSITION DATA					HELICOPTER NOISE MEASUREMENT PROGRAM			FAA/AEE 120	
878											FEB 6, 1981	
MIC # 1 CENTERLINE CENTER, 4 FT												

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG				
0005 F	6: 8: 2.5	6: 8: 1.8	-39.7	-0.2	147.0	520.4	738.0	135.2				
0006 F	6: 11: 12.0	6: 11: 11.5	-211.8	-1.1	106.2	478.2	625.0	130.2				
0007 F	6: 13: 30.5	6: 13: 29.0	-222.3	0.9	145.1	497.3	662.0	131.0				
0008 F	6: 16: 40.5	6: 16: 40.1	-122.7	-1.0	108.8	474.4	470.7	81.5				
0009 F	6: 18: 09.0	6: 18: 8.4	-252.0	1.0	144.7	522.5	702.1	131.4				
0010 F	6: 25: 58.0	6: 25: 55.9	-242.0	-0.9	161.1	2525.8	3040.8	121.7				
0011 F	6: 28: 24.0	6: 28: 21.5	-209.2	-1.2	141.8	2518.3	3077.8	131.8				
0012 F	6: 33: 4.0	6: 33: 0.3	-178.3	0.6	161.0	2604.1	4233.2	142.0				
0013 F	6: 39: 0.5	6: 39: 7.4	-138.8	-0.1	141.8	2037.0	2374.0	120.0				
0014 F	6: 42: 48.5	6: 42: 44.0	-192.0	0.3	157.5	2053.3	2786.0	132.5				
0015 F	6: 48: 38.5	6: 48: 36.0	-34.2	0.1	133.8	2085.0	2770.8	131.3				
0016 F	6: 50: 5.5	6: 50: 3.0	-187.5	-0.5	160.3	2115.4	3622.5	144.3				
0017 F	6: 54: 1.0	6: 53: 50.1	-140.8	-0.2	134.1	1554.3	2114.1	132.7				
0018 F	6: 56: 57.5	6: 56: 55.8	-100.0	0.7	155.4	1568.0	2582.1	142.6				
0019 F	7: 0: 45.0	7: 0: 44.0	-622.0	-0.6	53.3	410.0	410.5	87.3				

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

878

FEB 6, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 DEP	7:28:58.5	7:28:58.0	1448.0	10.1	80.1	408.4	547.2	131.7
42 ARR	7:30:41.5	7:30:41.0	-812.2	-6.5	53.3	366.7	580.8	140.9
43 DEP	7:33:55.0	7:33:44.8	1282.7	8.7	83.5	458.7	505.2	65.8
44 ARR	7:38:42.0	7:38:41.8	-878.8	-8.8	58.0	387.1	440.3	116.8
45 ARR	7:43:23.0	7:43:22.7	-700.7	-7.3	54.2	402.1	402.9	92.5
47 DEP	7:45:34.5	7:45:34.0	2042.2	13.8	82.3	437.3	584.1	131.5
48 ARR	7:49:35.0	7:49:34.8	-750.8	-7.3	58.0	394.7	467.7	122.4
49 DEP	7:52:22.0	7:52:21.5	1925.3	12.9	84.5	440.9	593.2	120.9
51 DEP	7:58:17.5	7:58:17.0	1950.5	12.8	84.8	430.4	557.5	120.5
52 FLE	8:01:00.5	8:01:00.4	90.5	0.4	131.0	1057.4	1241.0	121.8
53 FLE	8:03:20.5	8:03:20.1	87.5	0.2	180.0	1002.0	1808.8	137.1
54 FLE	8:06:21.5	8:06:18.7	222.3	1.0	122.2	1110.1	3163.2	159.5
55 FLE	8:08:27.0	8:08:25.7	-172.8	-0.8	102.1	1030.4	1425.2	133.7

REC. TIME: TIME PNLTW WAS RECORDED, RAD. TIME: TIME PNLTW WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTW WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

876

FEB 6, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	03:43.5	03:43.0	137.5	0.5	164.8	1108.1	1869.1	138.5
2	03:43.5	03:43.5	-70.7	-0.3	187.8	1030.0	1117.1	112.8
3	03:43.5	03:43.4	206.7	1.0	183.0	1053.7	1241.3	121.0
4	03:43.5	03:43.5	-83.5	-0.4	180.0	1058.7	1231.0	120.7
5	03:43.5	03:43.3	-73.5	-0.3	183.4	1035.0	1233.2	122.2
6	03:43.5	03:43.5	-100.0	-0.2	184.0	1041.0	1216.0	115.1
7	03:43.5	03:43.5	-133.8	-0.6	188.8	717.3	880.1	125.4
8	03:43.5	03:43.5	-133.8	-0.6	188.8	717.3	880.1	125.4
9	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	1038.1	131.6
10	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
11	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
12	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
13	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
14	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
15	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
16	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
17	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
18	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
19	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
20	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
21	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
22	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
23	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
24	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
25	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
26	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
27	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
28	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
29	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
30	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
31	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
32	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
33	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
34	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
35	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
36	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
37	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
38	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
39	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
40	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
41	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
42	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
43	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
44	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
45	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
46	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
47	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
48	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
49	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
50	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
51	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
52	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
53	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
54	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
55	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
56	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
57	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
58	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
59	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
60	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
61	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
62	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
63	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
64	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
65	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
66	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
67	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
68	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
69	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
70	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
71	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
72	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
73	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
74	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
75	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
76	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
77	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
78	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
79	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
80	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
81	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
82	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
83	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
84	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
85	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
86	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
87	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
88	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
89	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
90	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
91	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
92	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
93	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
94	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
95	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
96	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
97	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
98	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
99	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6
100	03:43.5	03:43.5	-145.8	-0.6	130.7	368.0	485.0	130.6

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

876

FEB 8, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
225	0:08:11.0	0:08:06.4	-158.7	-0.2	148.8	522.0	848.0	126.0
226	0:11:11.5	0:11:15.0	-183.3	-1.0	100.4	471.5	537.5	118.7
227	0:13:20.0	0:13:27.3	-183.0	-0.5	145.5	400.8	750.8	130.8
228	0:15:47.0	0:15:48.5	-185.0	-0.0	108.8	487.2	580.0	128.5
229	0:19:07.5	0:19:07.0	-211.2	-0.8	145.5	514.0	607.0	122.1
230	0:25:52.0	0:25:48.8	-160.0	-0.2	150.1	2506.8	3327.8	138.1
231	0:29:31.0	0:29:29.1	-180.2	-0.7	140.3	2513.7	2803.3	111.0
232	0:33:07.5	0:33:04.8	-172.5	-0.6	152.8	2800.3	3050.0	121.8
233	0:36:00.0	0:36:08.5	-182.5	-0.4	142.2	2042.4	2705.2	132.0
234	0:40:40.0	0:40:43.0	-180.0	-0.6	150.0	2050.5	2517.1	125.5
235	0:42:40.0	0:42:43.0	-180.0	-0.4	132.8	2043.4	2205.4	114.8
236	0:46:00.0	0:46:07.3	-100.0	-0.3	160.0	2113.0	2530.8	153.1
237	0:50:00.0	0:50:08.2	-115.2	-0.5	133.0	1681.5	1802.8	124.4
238	0:54:00.0	0:54:00.0	-232.0	-0.0	155.1	1550.3	1835.8	128.0
239	0:58:00.0	0:58:00.0	-200.0	-0.5	52.4	351.3	382.2	113.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-2 (CONT)

		POSITION DATA						
TEST DATE: JUNE 25, 1980		HELICOPTER NOISE MEASUREMENT PROGRAM						
878		FAA/AEE 120						
MIC # 2 CENTERLINE WEST, 4 FT		FEB 6, 1981						

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 DEP	7:26:58.5	7:26:58.2	1448.0	10.1	80.1	325.0	357.4	65.4
42 ARR	7:30:48.5	7:30:48.1	-815.5	-6.2	58.1	315.0	483.0	131.0
43 DEP	7:33:1.0	7:33:0.7	1885.2	12.3	75.3	354.1	483.4	81.4
44 ARR	7:36:46.5	7:36:46.1	-724.5	-7.2	50.5	333.7	482.3	127.9
45 DEP	7:43:27.5	7:43:27.2	-711.2	-7.4	54.2	338.5	340.4	105.8
47 DEP	7:45:34.5	7:45:34.2	2048.2	13.8	22.3	320.0	340.6	70.0
48 ARR	7:49:39.0	7:49:39.1	-744.0	-7.8	58.3	333.3	440.5	138.1
49 DEP	7:52:1.0	7:52:1.7	1908.3	12.0	84.8	336.6	358.9	69.7
51 DEP	7:58:7.5	7:58:7.3	1850.5	12.8	84.8	323.0	358.7	64.9
52 DEP	8:1:3.5	8:1:2.5	132.2	0.6	131.4	1003.7	1157.8	113.3
53 DEP	8:3:27.5	8:3:26.0	71.0	0.2	181.0	1000.4	1850.7	138.7
54 DEP	8:6:25.5	8:6:23.1	11.0	0.0	132.1	1073.4	2735.2	158.0
55 DEP	8:8:25.0	8:8:23.7	-300.0	-1.1	182.8	1030.4	1484.3	136.0

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT. O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-3.

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 8, 1981

MIC # 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	00:00:00	00:00:00	-102.3	0.4	183.7	1112.7	1958.7	145.4
2	00:00:01	00:00:01	-123.8	0.0	183.7	1036.1	1812.7	121.3
3	00:00:02	00:00:02	-200.4	0.0	182.3	1074.3	1384.8	128.1
4	00:00:03	00:00:03	-190.0	0.2	182.4	1065.2	1373.1	129.1
5	00:00:04	00:00:04	-195.2	0.3	182.0	1023.6	1031.3	147.6
6	00:00:05	00:00:05	-301.0	1.0	184.2	1027.2	2064.7	122.0
7	00:00:06	00:00:06	-210.8	0.0	187.0	732.3	986.0	130.7
8	00:00:07	00:00:07	-200.3	1.0	164.0	705.9	954.7	123.2
9	00:00:08	00:00:08	-111.7	0.1	191.4	375.2	550.4	140.5
10	00:00:09	00:00:09	-111.7	0.4	169.3	385.4	622.6	142.0
11	00:00:10	00:00:10	-104.5	0.8	183.3	1587.6	1887.7	122.8
12	00:00:11	00:00:11	-127.5	0.6	126.6	739.0	982.6	129.8
13	00:00:12	00:00:12	130.8	0.5	182.8	758.8	954.1	127.3
14	00:00:13	00:00:13	58.7	0.9	128.1	311.7	461.7	137.5
15	00:00:14	00:00:14	-70.2	0.4	93.5	190.4	686.6	132.8
16	00:00:15	00:00:15	157.2	0.7	123.1	521.8	727.8	134.2
17	00:00:16	00:00:16	75.3	0.3	127.6	405.2	704.1	141.4
18	00:00:17	00:00:17	-223.0	1.3	94.8	452.2	587.8	129.7
19	00:00:18	00:00:18	-122.0	0.8	125.7	531.5	642.3	124.9

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-3 (CONT)

TEST DATE: JUNE 25, 1980
 578
 MIC # 3 CENTERLINE EAST, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 FEB 8, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25 F-E	8:08:4.5	8:08:3.8	-88.7	-0.3	147.5	517.8	733.8	135.1
26 F-E	8:11:0.8	8:11:0.0	-318.3	-1.7	165.9	487.2	688.0	128.8
27 F-E	8:13:32.5	8:13:31.0	-220.2	0.9	144.3	504.0	689.7	130.9
28 F-E	8:18:41.0	8:18:40.4	-247.0	-1.3	107.2	484.5	689.5	133.6
29 F-E	8:19:11.5	8:19:10.9	-274.3	-1.1	142.5	532.5	632.7	121.7
31 F-E	8:28:1.0	8:28:02.5	-127.0	-0.4	162.0	2320.3	2849.3	115.5
32 F-E	8:29:24.0	8:29:21.2	-130.0	-0.5	139.2	2523.0	3117.0	120.0
33 F-E	8:33:6.5	8:33:2.0	-139.0	0.5	159.2	2801.0	4049.3	140.0
34 F-E	8:39:0.5	8:39:4.3	-254.2	-1.0	141.4	2020.1	2529.0	120.6
35 F-E	8:42:30.5	8:42:34.8	-44.5	0.2	169.1	2315.5	2571.0	153.9
36 F-E	8:48:38.0	8:48:35.8	-24.5	-0.1	155.0	2001.5	2519.3	123.0
37 F-E	8:50:15.5	8:50:13.5	-107.2	-0.7	160.8	2102.2	2512.4	107.7
38 F-E	8:54:0.0	8:53:52.3	-22.3	0.1	124.9	1542.9	1915.2	124.0
39 F-E	8:57:1.5	8:56:50.7	-317.7	-1.2	154.7	1522.8	2001.3	130.2
40 ARR	7:0:35.8	7:0:35.0	-552.2	-5.7	58.7	403.2	610.5	130.8

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

676

FEB 2, 1981

MIC # 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 DEP	7:27:1.0	7:27:0.5	1144.7	7.2	80.8	473.1	524.1	115.5
42 ARR	7:30:37.5	7:30:37.0	-574.2	-6.2	52.0	418.8	524.7	127.1
43 DEP	7:33:38.5	7:33:38.0	1232.0	7.8	91.5	534.2	573.0	88.0
44 ARR	7:36:35.0	7:36:34.5	-589.3	-5.7	58.0	458.7	601.0	130.3
45 ARR	7:43:15.5	7:43:15.0	-841.5	-8.0	54.7	457.0	510.1	118.2
46 DEP	7:45:37.0	7:45:36.3	2112.2	14.1	83.4	552.0	765.4	133.2
47 ARR	7:49:28.0	7:49:27.5	-1380.7	-13.3	55.7	460.7	816.6	131.8
48 DEP	7:52:4.0	7:52:3.3	1082.5	12.7	88.0	533.1	825.1	137.0
49 ARR	7:55:0.5	7:55:0.0	2022.8	13.1	85.0	548.0	783.1	135.5
50 DEP	8:0:0.0	8:0:0.0	121.5	0.5	131.0	1051.0	1155.4	114.5
51 FTL	8:0:33.5	8:0:32.4	40.2	0.1	121.2	1037.1	1102.1	113.7
52 FTL	8:0:10.5	8:0:16.0	-44.3	-0.2	131.7	1100.0	1104.6	150.2
53 FTL	8:0:30.0	8:0:30.0	137.0	0.5	121.0	1037.3	1158.1	110.2

REC. TIME: TIME PNLTH WAS RECORDED, RAD. TIME: TIME PNLTH WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTH WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 180
FEB 6, 1981

\$78

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C RPM	O/D-ANG DEG	QS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	000000	000000	1000	0.4	163.7	1854.0	1622.0	180.4
2	000000	000000	1000	0.3	184.0	1117.0	1378.8	185.0
3	000000	000000	1000	1.1	163.5	1107.0	1510.3	187.5
4	000000	000000	1000	1.1	180.1	1158.8	1571.7	180.0
5	000000	000000	1000	0.8	163.1	1732.1	1935.0	118.5
6	000000	000000	1000	1.0	164.2	1721.8	1860.3	118.0
7	000000	000000	1000	1.0	127.6	886.1	951.4	112.3
8	000000	000000	1000	0.1	164.7	900.7	1183.8	183.2
9	000000	000000	1000	0.4	120.0	618.0	841.0	105.1
10	000000	000000	1000	0.6	165.8	643.0	890.4	133.8
11	000000	000000	1000	0.4	160.0	1700.0	1878.0	116.0
12	000000	000000	1000	0.4	160.0	862.4	1042.7	124.2
13	000000	000000	1000	0.5	160.0	928.6	1153.5	188.4
14	000000	000000	1000	0.0	120.0	634.0	760.6	188.4
15	000000	000000	1000	0.0	120.0	687.0	768.8	190.6
16	000000	000000	1000	0.0	120.0	755.8	798.2	188.8
17	000000	000000	1000	0.0	120.0	742.5	821.6	115.4
18	000000	000000	1000	0.0	120.0	662.0	882.0	162.0
19	000000	000000	1000	0.0	120.0	776.0	902.7	120.7

REQ. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 180
FEB 8, 1981

878

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
225	8:11:3.5	8:11:2.8	-228.5	-0.3	147.2	772.7	829.0	111.2
226	8:11:11.5	8:11:10.7	-229.5	-1.2	105.8	875.5	850.0	122.1
227	8:13:31.0	8:13:30.3	-228.3	-0.0	144.0	741.5	810.1	115.1
228	8:16:43.5	8:16:42.8	-227.3	-1.2	108.1	674.2	846.8	127.2
229	8:19:05.5	8:19:04.7	-225.2	-1.0	144.3	201.1	820.1	114.5
230	8:25:55.0	8:25:51.7	-224.2	-0.2	180.7	2700.1	3788.2	133.6
231	8:28:20.0	8:28:20.5	-224.3	-0.2	130.2	2570.0	2788.5	112.4
232	8:33:20.0	8:33:27.7	-224.7	-0.8	161.0	2704.4	4275.3	145.3
233	8:39:10.0	8:39:7.0	-224.2	-0.1	140.7	2007.5	2305.0	117.6
234	8:42:44.5	8:42:41.8	-216.2	-0.8	158.2	2106.5	3313.2	140.5
235	8:45:43.0	8:45:41.0	-182.5	-0.7	138.6	2142.8	2247.3	107.6
236	8:50:12.5	8:50:10.4	-121.7	-0.4	180.9	2170.5	2415.2	118.0
237	8:51:55.0	8:51:53.5	-202.8	-0.9	132.6	1503.2	1650.0	105.1
238	8:57:06.5	8:56:52.7	-222.3	-1.0	155.4	1873.2	2018.1	124.0
239	7:0:40.0	7:0:30.3	-503.3	-8.1	54.0	655.8	202.1	125.2

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 6, 1981

MIC # 4 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 DEP	7:26:56.5	7:26:55.8	1446.0	10.1	80.1	667.0	781.0	121.2
42 ARR	7:30:37.0	7:30:36.0	-590.8	-8.4	51.6	624.8	1086.2	144.0
43 DEP	7:33:11.5	7:33:09.8	1610.5	11.8	78.4	678.3	740.0	113.8
44 ARR	7:36:39.5	7:36:38.8	-734.3	-7.3	56.8	611.3	752.2	126.0
46 ARR	7:43:19.0	7:43:18.3	-622.2	-6.4	54.7	648.1	764.7	122.0
47 DEP	7:45:35.5	7:45:34.0	3071.5	13.8	83.0	699.0	803.8	112.7
48 ARR	7:49:33.5	7:49:32.8	-743.3	-7.6	55.5	621.3	741.0	122.1
49 DEP	7:52:04.0	7:52:03.4	1962.8	12.7	86.0	651.6	864.3	109.8
51 DEP	7:58:08.0	7:58:07.4	1854.8	12.8	84.0	638.5	713.7	116.5
52 FLEW	8:01:02.0	8:01:01.0	146.2	0.6	131.0	1107.0	1145.4	104.0
53 FLEW	8:03:31.5	8:03:30.3	43.5	0.2	160.8	1255.2	1376.5	114.0
54 FLEW	8:06:24.0	8:06:21.7	-165.3	-0.7	132.7	1166.8	2574.0	153.1
55 FLEW	8:08:27.5	8:08:26.2	-108.0	-0.4	162.0	1177.7	1445.7	125.5

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-B (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
876
MIC # 5 SIDELINE SOUTH, 4 FT

FAA/AEE 120
FEB 8, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25 F-F	0:04.0	0:03.4	-74.3	-0.3	147.3	603.0	708.0	101.8
26 F-F	0:11:12.5	0:11:11.8	-103.0	-1.0	108.3	606.5	775.1	116.0
27 F-F	0:13:30.5	0:13:29.8	-222.3	0.0	145.1	654.0	808.7	125.7
28 F-F	0:18:45.0	0:18:44.3	-183.2	-1.0	100.7	602.0	742.0	111.0
29 F-F	0:19:00.0	0:19:00.0	-258.0	1.0	144.7	620.4	805.0	123.6
31 F-F	0:20:00.0	0:20:00.0	-194.0	-0.7	161.6	2532.3	2738.4	110.7
32 F-F	0:20:27.0	0:20:24.3	-121.3	-0.5	140.4	2552.7	3014.8	122.1
33 F-F	0:33:10.5	0:33:08.0	-234.5	0.8	158.8	2625.4	3284.2	114.5
34 F-F	0:39:08.5	0:39:08.2	-104.3	-0.4	141.1	2609.7	3571.2	125.5
35 F-F	0:42:48.0	0:42:45.8	-238.8	0.0	157.6	2118.0	2543.5	123.7
36 F-F	0:48:48.0	0:48:39.0	-145.8	-0.6	138.4	2141.9	2356.9	114.7
37 F-F	0:50:10.0	0:50:07.5	-93.3	-0.3	120.9	2173.1	2506.3	120.2
38 F-F	0:54:01.5	0:53:59.8	16.2	0.1	133.4	1666.5	2125.4	122.4
39 F-F	0:58:50.5	0:58:57.0	-237.0	0.0	155.4	1812.4	2151.8	131.5
40 ARR	7:03:38.5	7:03:37.7	-610.2	-6.2	55.0	624.3	885.1	135.1

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-5 (CONT)

TEST DATE: JUNE 25, 1980
 876
 MIC # E SIDELINE SOUTH, 4 FT

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 FEB 6, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41.000000	7:28:55.5	7:28:57.0	1274.5	8.5	24.9	647.3	653.7	98.9
42.000000	7:30:40.5	7:30:42.0	-1524.6	-18.2	52.0	602.1	625.7	133.2
43.000000	7:32:44.5	7:32:46.0	-1528.5	-18.7	52.8	652.4	677.7	106.8
44.000000	7:34:33.5	7:34:35.0	-1738.7	-17.0	54.8	621.4	622.4	88.7
45.000000	7:36:24.5	7:36:26.0	898.0	14.0	23.1	677.8	693.8	104.7
46.000000	7:38:05.5	7:38:07.0	1030.0	12.7	22.6	272.2	281.2	98.7
47.000000	7:39:44.5	7:39:46.0	1033.0	13.0	22.6	668.2	681.2	101.5
48.000000	7:41:21.5	7:41:23.0	107.5	0.2	131.0	1222.6	1243.2	114.6
49.000000	7:43:02.5	7:43:04.0	67.5	0.2	120.0	1137.6	1263.1	136.8
50.000000	7:44:42.5	7:44:44.0	233.5	1.0	122.7	1259.2	3345.0	157.9
51.000000	7:46:22.5	7:46:24.0	-39.7	-0.1	121.7	1164.3	1303.0	122.1

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
S78

FAA/AEE 180
FEB 8, 1981

MIC # 8 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
11 7 11	05:28:38.0	05:28:37.0	-140.0	-0.5	120.1	1022.4	1108.0	111.0
12 7 11	05:30:10.0	05:30:17.0	-100.0	-0.0	123.8	1004.0	1030.0	124.4
13 7 11	05:30:10.0	05:30:11.0	-100.0	-0.4	123.7	1154.0	1440.0	127.0
14 7 11	05:30:10.0	05:30:11.0	-150.0	-0.0	123.0	1230.0	1530.0	126.5
15 7 11	05:40:33.0	05:40:33.0	-140.0	-0.0	122.6	1041.0	1077.7	105.0
16 7 11	05:40:33.0	05:40:33.0	-44.0	-0.0	122.0	1043.0	1147.0	114.0
17 7 11	05:40:33.0	05:40:33.0	-110.0	-0.0	122.0	1119.0	1633.0	130.7
18 7 11	05:40:33.0	05:40:33.0	-150.0	-0.0	122.0	1118.7	1486.7	128.7
19 7 11	05:40:33.0	05:40:33.0	-76.0	-0.0	124.7	1018.1	1023.5	97.4
20 7 11	05:40:33.0	05:40:33.0	-140.0	-0.0	127.0	1134.0	1266.7	115.6

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

678

FEB 6, 1981

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
26 FTF	6: 8: 2.5	6: 8: 1.4	-39.7	-0.8	147.0	1095.1	1269.0	120.3
27 FTF	6: 11: 13.5	6: 11: 12.8	-160.5	-0.9	105.5	1033.5	1053.2	101.1
28 FTF	6: 13: 31.0	6: 13: 30.0	226.3	0.9	144.0	1108.4	1187.3	111.0
29 FTF	6: 16: 45.0	6: 16: 44.1	-180.2	-1.0	108.7	1033.3	1088.3	104.0
30 FTF	6: 19: 09.0	6: 19: 7.8	252.0	1.0	144.7	1172.9	1303.2	115.0
31 FTF	6: 25: 57.5	6: 25: 54.5	-220.8	-0.8	160.2	2270.2	3415.8	122.8
32 FTF	6: 29: 31.5	6: 29: 29.1	-180.2	-0.7	140.3	2708.8	2753.6	100.4
33 FTF	6: 32: 59.5	6: 32: 54.4	-40.2	-0.1	162.5	3065.3	5732.2	148.4
34 FTF	6: 39: 12.5	6: 39: 10.5	254.7	1.0	141.6	2243.1	2228.2	101.4
35 FTF	6: 42: 50.5	6: 42: 48.4	54.2	0.2	157.2	2246.8	2371.0	108.2
36 FTF	6: 46: 43.0	6: 46: 40.0	-162.5	-0.7	138.6	2223.8	2382.0	106.5
37 FTF	6: 50: 11.0	6: 50: 8.8	-118.7	-0.4	161.1	2302.7	2708.2	124.1
38 FTF	6: 54: 2.0	6: 54: 0.1	61.8	0.3	133.4	1745.3	2113.0	124.4
39 FTF	6: 57: 3.5	6: 57: 1.8	330.3	1.2	153.9	1875.2	1503.8	99.0
40 ARF	7: 0: 30.0	7: 0: 28.0	-612.3	-5.4	54.7	1035.5	1186.3	119.2

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 04-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S78

FEB 8, 1981

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 DEP	7:27:2.0	7:27:1.1	1103.5	8.8	91.8	1007.0	1000.6	71.7
42 ARR	7:30:36.0	7:30:34.8	-818.2	-8.7	52.1	1013.5	1418.5	134.4
43 DEP	7:32:52.0	7:32:50.3	1385.3	10.1	75.8	1070.6	1017.2	148.1
44 ARR	7:36:41.5	7:36:40.6	-873.0	-8.8	55.7	987.3	1018.7	104.3
45 ARR	7:43:16.0	7:43:14.0	-837.8	-8.8	54.7	1028.8	1247.3	124.4
47 DEP	7:45:35.0	7:45:34.0	2064.5	13.8	82.0	1006.3	1024.0	111.8
48 ARR	7:49:35.0	7:49:34.1	-759.8	-7.8	56.0	1000.2	1030.0	105.7
49 DEP	7:52:3.5	7:52:2.6	1970.7	12.8	85.5	1019.3	1048.8	103.6
51 DEP	7:52:12.5	7:52:11.8	2200.0	14.3	85.4	1007.3	1048.3	73.7
52 F-E	8:1:1.0	8:0:59.7	107.2	0.5	131.0	1315.3	1430.0	113.7
53 F-E	8:3:32.0	8:3:30.8	35.0	0.1	181.1	1528.0	1592.5	106.6
54 F-E	8:6:06.5	8:6:17.3	129.7	0.6	130.4	1471.0	3553.7	155.5
55 F-E	8:8:23.0	8:8:50.5	-390.7	-1.4	161.3	1444.2	2790.0	148.9

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

876

FEB 6, 1981

MIC #10 CENTERLINE CENTER, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	0000	0000	0000	0.0	163.0	1113.1	1397.4	187.8
1	0000	0000	0000	-0.5	164.0	1038.4	1484.3	135.6
1	0000	0000	0000	1.1	163.5	1087.3	1400.6	130.5
1	0000	0000	0000	1.1	168.0	1087.0	1415.0	131.1
1	0000	0000	0000	1.1	163.1	1031.0	2205.2	134.7
1	0000	0000	0000	1.1	164.0	1040.4	2114.8	120.1
1	0000	0000	0000	1.1	167.0	785.8	1000.3	134.1
1	0000	0000	0000	1.1	164.0	788.4	998.6	127.8
1	0000	0000	0000	-0.0	169.3	376.3	534.7	135.3
1	0000	0000	0000	-0.0	169.0	391.2	558.4	135.3
1	0000	0000	0000	-0.0	169.0	1592.1	8028.4	128.3
1	0000	0000	0000	-0.4	166.1	740.8	1010.0	128.3
1	0000	0000	0000	-0.5	168.0	767.0	1107.2	136.8
1	0000	0000	0000	-0.1	167.0	313.7	481.7	131.0
1	0000	0000	0000	-0.0	168.0	405.8	541.1	113.6
1	0000	0000	0000	-0.0	169.3	512.5	772.9	127.0
1	0000	0000	0000	-0.0	168.0	403.5	743.8	128.4
1	0000	0000	0000	-0.0	164.0	451.8	595.1	130.6
1	0000	0000	0000	-0.0	166.0	545.4	781.3	134.2

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-7 (CONT)

TEST DATE: JUNE 25, 1980
 876
 MIC #10 CENTERLINE CENTER, GROUND
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 180
 FEB 6, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
2255	01:21:22.5	01:21:12.8	-30.7	-0.2	147.0	524.4	740.8	134.0
2256	01:11:12.5	01:11:12.0	-192.0	-1.0	108.3	482.2	576.1	128.2
2257	01:13:30.5	01:13:29.0	222.3	0.0	145.1	501.3	686.6	131.2
2258	01:18:45.0	01:18:44.5	-182.2	-1.0	106.7	478.4	523.0	114.1
2259	01:10:50.0	01:10:48.4	252.0	1.0	144.7	530.4	705.0	131.2
2260	01:25:55.0	01:25:53.0	-165.5	-0.6	160.8	2533.8	3313.2	128.6
2261	01:20:25.0	01:20:22.7	-222.2	-0.0	141.0	2522.3	3224.9	128.5
2262	01:33:28.0	01:33:26.1	182.0	0.7	158.2	2608.1	3299.8	127.8
2263	01:40:47.0	01:40:45.3	-104.3	-0.4	141.1	2041.0	2524.4	128.0
2264	01:42:47.0	01:42:44.8	108.2	0.7	157.2	2057.3	2887.0	130.0
2265	01:46:38.0	01:46:36.0	34.2	0.1	136.2	2050.0	2770.2	131.3
2266	01:50:12.0	01:50:09.0	-118.7	-0.4	160.2	2110.4	2418.5	118.2
2267	01:54:11.0	01:54:09.7	16.2	0.1	133.4	1558.3	2028.7	120.7
2268	01:57:11.0	01:57:09.4	-272.7	-1.0	154.0	1572.0	1838.3	121.2
2269	01:01:45.0	01:01:44.6	-623.6	-6.6	53.3	414.0	414.4	87.4

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-7 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
S78
MIC #10 CENTERLINE CENTER, GROUND

FAA/AEE 120
FEB 8, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 DEP	7:26:57.5	7:26:57.1	1355.0	0.3	81.8	412.4	467.0	118.2
42 ARR	7:30:42.0	7:30:41.5	-813.2	-6.5	53.3	370.6	547.4	137.4
43 DEP	7:33:5.0	7:33:4.6	1292.7	8.7	83.5	462.6	508.5	65.5
44 ARR	7:36:41.5	7:36:41.1	-673.0	-8.8	55.7	401.1	487.2	120.9
46 ARR	7:43:23.0	7:43:22.6	-760.7	-7.3	54.2	406.1	496.9	93.7
47 DEP	7:45:35.0	7:45:34.5	2084.5	13.8	82.9	441.2	538.4	124.7
48 ARR	7:49:35.0	7:49:34.8	-759.8	-7.8	58.0	398.7	471.3	122.2
49 DEP	7:52:3.5	7:52:3.1	1970.7	12.8	85.5	452.8	478.8	109.0
51 DEP	7:58:8.5	7:58:8.1	1972.7	12.8	85.4	434.3	477.2	114.5
52 F-I-W	8:1:1.5	8:1:0.5	146.3	0.8	130.8	1061.3	1134.8	110.7
53 F-I-E	8:3:29.5	8:3:28.1	87.5	0.2	160.0	1096.8	1611.3	137.1
54 F-I-E	8:6:21.5	8:6:18.7	228.3	1.0	122.2	1114.0	3164.6	150.4
55 F-I-E	8:8:27.5	8:8:26.3	-108.0	-0.4	162.0	1034.4	1318.2	128.3

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

HELICOPTER POSITION DATA NOISE MEASUREMENT PROGRAM

FAA/AEE 120
FEB 8 1981

NIC #1H CENTERLINE CENTER, 33FT

[illegible]

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-B (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

876

FEB 6, 1981

MIC #14 CENTERLINE CENTER, 33FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
0001	00:00:00.0	00:00:00.0	-39.7	-0.2	147.0	491.5	714.2	136.5
0002	00:00:11.0	00:00:11.0	-211.8	-1.1	106.3	440.2	601.3	131.7
0003	00:00:13.0	00:00:13.0	-222.2	-0.9	145.1	422.2	637.6	132.7
0004	00:00:16.0	00:00:16.0	-193.3	-1.0	108.7	445.5	540.4	124.5
0005	00:00:19.0	00:00:19.0	-278.0	-1.0	144.7	438.4	678.2	132.7
0006	00:00:25.0	00:00:25.0	-215.2	-0.8	160.7	2557.1	3485.4	132.8
0007	00:00:28.0	00:00:28.0	-365.5	-1.2	141.7	2450.3	3286.5	130.4
0008	00:00:30.0	00:00:30.0	-153.7	-0.5	153.8	2575.2	3474.7	132.2
0009	00:00:30.0	00:00:30.0	-155.0	-0.6	141.3	2608.0	2558.8	129.1
0010	00:00:42.0	00:00:42.0	-103.0	-0.7	157.8	2624.3	2781.2	132.0
0011	00:00:46.0	00:00:46.0	-93.7	-0.1	136.6	2656.0	2951.0	135.5
0012	00:00:50.0	00:00:50.0	-90.5	-0.3	100.0	2628.4	2867.5	133.1
0013	00:00:54.0	00:00:54.0	-61.2	-0.3	123.4	1525.4	1914.6	127.2
0014	00:00:57.0	00:00:57.0	-83.5	-1.0	155.4	1539.1	1991.1	125.5
0015	00:01:00.0	00:01:00.0	-61.2	-0.4	54.3	261.2	458.1	123.7

REC. TIME: TIME PNLTW WAS RECORDED. RAD. TIME: TIME PNLTW WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTW WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-8 (CONT)

TEST DATE: JUNE 26, 1980
 S76
 MIC #1H CENTERLINE CENTER, 33FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 FEB 8, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 DEP	7:28:57.0	7:28:58.0	1380.3	0.0	80.0	370.0	482.1	128.0
42 ARR	7:30:42.5	7:30:42.1	-1505.7	-0.3	59.4	337.0	484.3	135.8
43 DEP	7:33:22.0	7:33:11.8	1580.7	11.3	77.5	430.0	470.1	113.8
44 ARR	7:36:41.0	7:36:40.0	-1800.0	-7.0	55.0	388.4	465.0	127.0
45 ARR	7:43:23.0	7:43:28.7	-700.7	-7.3	64.0	373.4	373.0	92.8
47 DEP	7:45:35.5	7:45:35.1	2071.5	13.8	83.0	400.0	472.0	120.1
48 ARR	7:48:36.0	7:48:35.7	-763.9	-7.0	56.4	366.0	394.5	111.0
50 DEP	7:52:22.0	7:52:11.5	1880.3	12.0	84.5	420.7	578.0	133.1
51 DEP	7:58:11.0	7:58:01.1	1972.7	12.8	85.4	400.0	440.0	118.0
52 DEP	8:01:00.0	8:01:00.0	104.5	0.4	131.7	1000.0	1800.7	127.0
53 DEP	8:03:00.0	8:03:00.0	78.5	0.0	101.3	1004.1	1707.0	141.5
54 DEP	8:06:00.0	8:06:00.0	233.5	1.0	120.7	1112.3	3577.0	160.0
55 DEP	8:08:00.0	8:08:00.0	244.5	-0.0	102.5	1001.5	1525.3	130.0

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120
FEB 6, 1981

S78

MIC #GE SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	05:31:47.0	05:31:48.0	56.0	0.0	163.0	1106.3	1302.4	120.8
2	05:31:48.0	05:31:49.0	56.0	0.0	127.0	1174.3	1240.8	119.0
3	05:31:49.0	05:31:50.0	56.0	0.0	161.0	1144.8	1314.2	119.8
4	05:31:50.0	05:31:51.0	56.0	0.0	128.0	1157.8	1455.8	125.3
5	05:31:51.0	05:31:52.0	56.0	0.0	103.0	1671.0	2008.5	123.7
6	05:31:52.0	05:31:53.0	56.0	0.0	163.0	1600.5	1918.0	117.8
7	05:31:53.0	05:31:54.0	56.0	0.0	127.0	1600.5	2008.5	108.3
8	05:31:54.0	05:31:55.0	56.0	0.0	164.0	861.8	979.0	118.3
9	05:31:55.0	05:31:56.0	56.0	0.0	160.0	817.3	883.3	117.1
10	05:31:56.0	05:31:57.0	56.0	0.0	160.0	811.0	747.0	125.8
11	05:31:57.0	05:31:58.0	56.0	0.0	163.0	1627.0	1814.0	118.8
12	05:31:58.0	05:31:59.0	56.0	0.0	125.0	911.7	1987.4	123.0
13	05:31:59.0	05:32:00.0	56.0	0.0	163.0	874.5	1108.8	127.6
14	05:32:00.0	05:32:01.0	56.0	0.0	127.0	585.0	881.6	120.5
15	05:32:01.0	05:32:02.0	56.0	0.0	92.0	708.1	785.7	102.9
16	05:32:02.0	05:32:03.0	56.0	0.0	120.0	667.0	801.0	131.4
17	05:32:03.0	05:32:04.0	56.0	0.0	122.0	644.0	791.2	125.4
18	05:32:04.0	05:32:05.0	56.0	0.0	104.0	620.1	697.1	103.7
19	05:32:05.0	05:32:06.0	56.0	0.0	120.0	637.1	874.0	123.8

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-9 (CONT)

TEST DATE: JUNE 25, 1980
 878
 MIC #50 SIDELINE SOUTH, GROUND

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 180
 FEB 6, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FFM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
25	01:01:35	01:01:35	-100.0	-0.3	147.0	695.0	748.4	111.6
26	01:11:13	01:11:13	-100.0	-0.0	105.0	699.0	717.6	103.0
27	01:13:31	01:13:31	-100.0	-0.0	144.0	657.0	736.0	116.7
28	01:16:45	01:16:44	-100.0	-1.1	108.0	695.0	715.7	103.7
29	01:18:00	01:18:00	-100.0	-1.6	144.7	638.7	667.5	128.4
30	01:20:00	01:20:00	-100.0	-0.7	161.0	2588.3	2748.2	110.6
31	01:22:00	01:22:00	-100.0	-0.0	140.0	2558.7	3181.2	126.5
32	01:24:00	01:24:00	-100.0	-0.0	150.7	2629.4	2958.3	117.0
33	01:26:00	01:26:00	-100.0	-0.0	141.0	2647.8	2670.3	128.2
34	01:28:00	01:28:00	-100.0	-0.0	150.0	2110.0	2738.9	129.1
35	01:30:00	01:30:00	-100.0	-0.0	133.0	2145.8	2841.7	131.0
36	01:32:00	01:32:00	-100.0	-0.0	130.0	2177.0	2847.0	104.4
37	01:34:00	01:34:00	-100.0	-0.0	133.0	1679.2	1802.6	112.1
38	01:36:00	01:36:00	-100.0	-0.0	135.0	1016.3	2056.5	128.2
39	01:38:00	01:38:00	-100.0	-0.0	135.0	686.0	663.0	71.0

REC. TIME: TIME PNLTH WAS RECORDED, RAD. TIME: TIME PNLTH WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTH WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980 FAA/AEE 120
 S78 FEB 8, 1981
 MIC #5G SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
41 DEP	7:27:11.5	7:27:00.9	1117.5	6.9	90.6	649.7	724.6	63.7
42 ARR	7:30:45.5	7:30:45.0	-565.7	-5.9	54.4	604.8	612.1	99.0
43 DEP	7:33:06.0	7:33:05.3	1222.5	8.0	85.6	668.8	748.6	63.3
44 ARR	7:36:44.5	7:36:43.9	-688.5	-6.7	55.8	654.8	654.8	90.9
46 ARR	7:43:26.5	7:43:25.9	-732.6	-7.6	54.5	629.9	675.3	67.5
47 DEP	7:45:36.0	7:45:35.4	8086.2	13.9	83.1	678.4	701.3	104.7
48 ARR	7:49:37.0	7:49:36.4	-770.2	-7.7	56.6	642.3	648.1	97.6
49 DEP	7:52:05.0	7:52:04.4	1923.5	18.3	37.2	679.4	651.6	85.3
52 F-W	8:00:50.0	8:00:57.6	121.5	0.5	131.6	1226.0	1618.5	130.8
53 F-W	8:03:30.0	8:03:28.6	50.3	0.2	161.3	1141.5	1556.2	132.6
54 F-W	8:06:21.0	8:06:18.0	238.5	1.0	128.7	1263.0	3349.2	157.8
55 F-W	8:08:28.0	8:08:26.2	-30.7	-0.1	161.7	1108.0	1307.7	122.1

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C5 Summary
UH60A June 25, 1980
Flight Path Tracking Plots And Position Data

1. FLIGHT PATH TRACKING PLOTS

Event No.	Plot Fig No.	Operation			
56	C5-1	300 Ft.	LFO	152 kts	Target Speed
57	"	"		"	"
58	"	"		"	"
59	"	"		"	"
60	C5-2	700 Ft.	LFO	152 kts	Target Speed
62	"	"		"	"
63	"	"		"	"
64	C5-3	1000 Ft.	LFO	152 kts	Target Speed
66	"	"		"	"
67	"	"		"	"
68	C5-4	1500 Ft.	LFO	152 kts	Target Speed
69	"	"		"	"
70	"	"		"	"
71	"	"		"	"
73	C5-5	2000 Ft.	LFO	152 kts	Target Speed
74	"	"		"	"
75	"	"		"	"
76	C5-6	2500 Ft.	LFO	152 kts	Target Speed

2. POSITION DATA TABLES

Table No.	Microphone
C5-1	Mic. 1, Centerline Center 4 ft.
C5-2	Mic. 2, Centerline 150m West 4 ft.
C5-3	Mic. 3, Centerline 150m East 4 ft.
C5-4	Mic. 4, Centerline 164m North 4 ft.
C5-5	Mic. 5, Sideline 150m South 4 ft.
C5-6	Mic. 6, Sideline 284m North 4 ft.
C5-7	Mic. 1G, Centerline Center (Ground)
C5-8	Mic. 1H, Centerline Center 33 ft.
C5-9	Mic. 5G, Sideline 150m South (Ground)

FIGURE C5-2

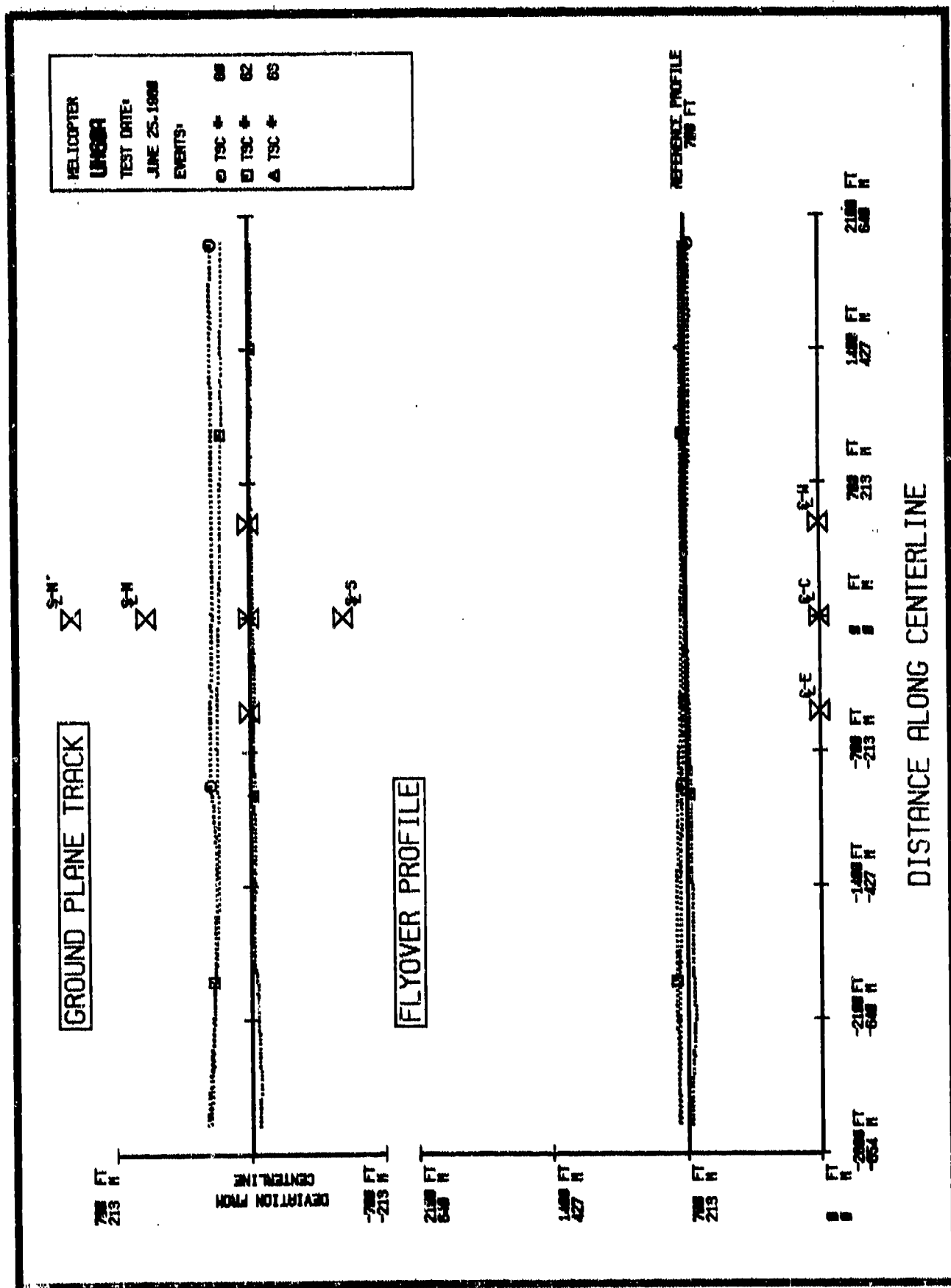


FIGURE C5-4

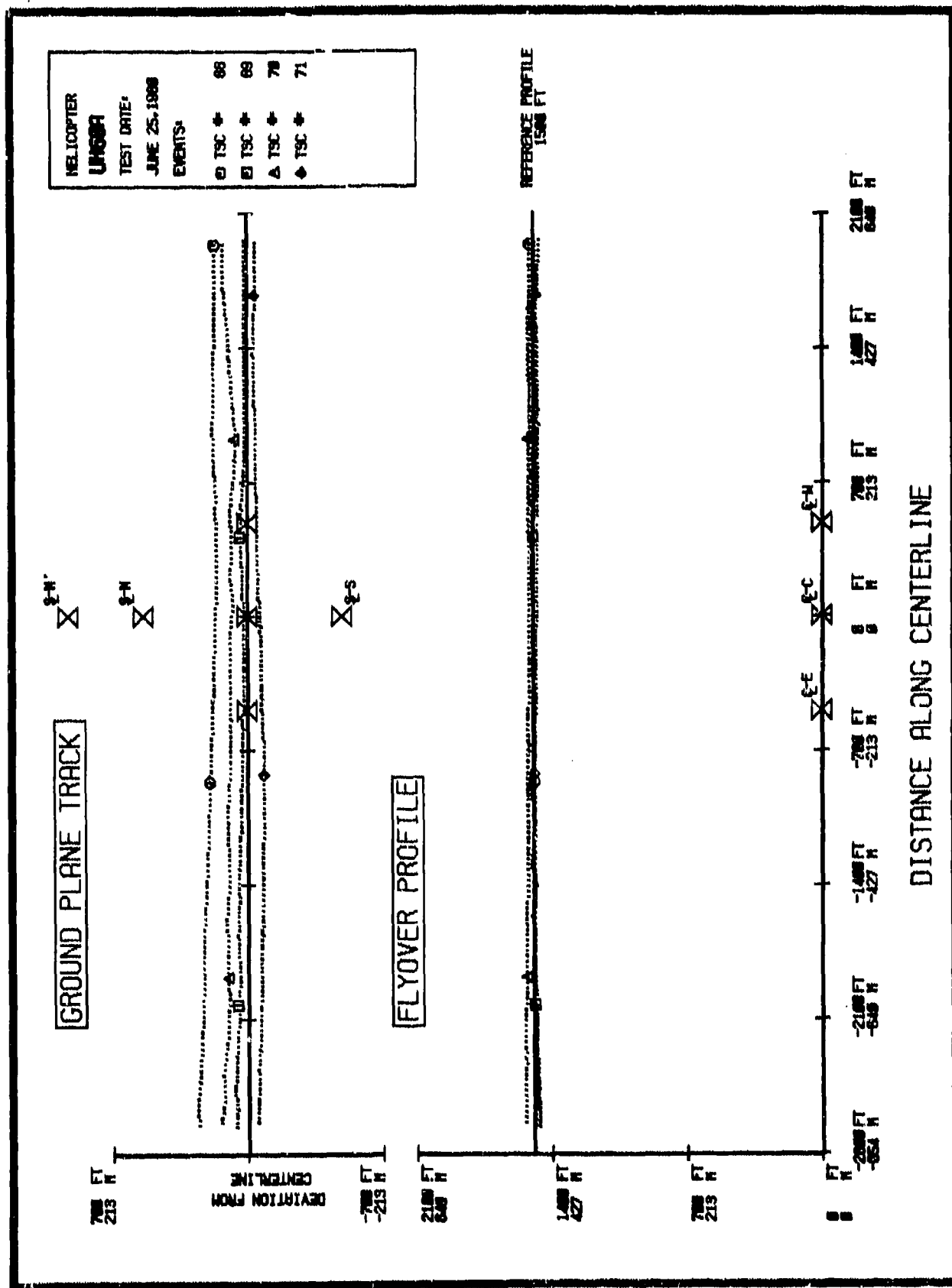


FIGURE C5-6

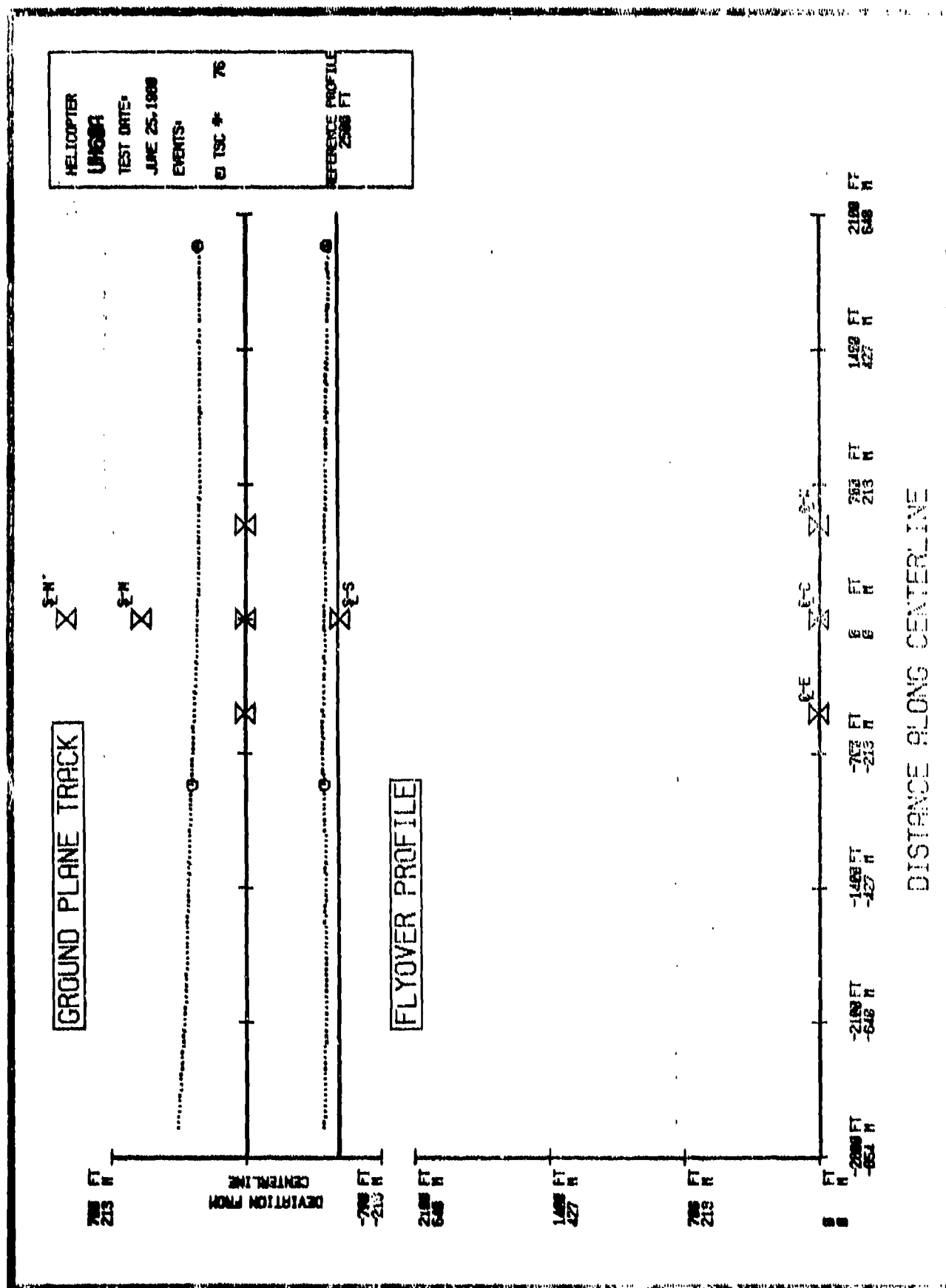


TABLE C5-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 180

UH60A

MAR 12, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
56	00:01:20.5	00:01:20.1	45.8	0.2	168.1	322.5	502.3	140.1
57	00:01:24.1	00:01:20.6	78.2	0.3	141.6	323.7	457.8	135.0
58	00:01:28.1	00:01:20.8	108.7	0.3	164.0	337.6	833.0	158.1
59	00:01:31.5	00:01:27.5	108.7	0.7	149.4	357.6	567.7	144.8
60	00:01:35.5	00:01:31.3	108.7	1.3	168.8	727.3	1139.5	140.3
61	00:01:39.5	00:01:31.3	108.7	1.0	170.3	730.0	740.0	99.4
62	00:01:43.5	00:01:31.3	108.7	0.0	139.6	647.3	1343.7	148.7
63	00:01:47.5	00:01:31.3	108.7	0.1	168.8	984.0	1798.5	148.8
64	00:01:51.5	00:01:31.3	108.7	0.7	165.1	998.1	1100.1	114.0
65	00:01:55.5	00:01:31.3	108.7	0.2	139.6	999.5	1306.5	130.4
66	00:01:59.5	00:01:31.3	108.7	1.1	168.1	1502.4	3737.6	156.3
67	00:02:03.5	00:01:31.3	108.7	1.6	146.8	1605.3	4116.0	157.0
68	00:02:07.5	00:01:31.3	108.7	0.5	152.0	1517.5	2728.5	147.0
69	00:02:11.5	00:01:31.3	108.7	0.5	151.4	1588.4	4085.5	157.4
70	00:02:15.5	00:01:31.3	108.7	0.6	153.0	2024.0	3845.5	149.1
71	00:02:19.5	00:01:31.3	108.7	0.4	154.0	2638.0	3638.0	145.9
72	00:02:23.5	00:01:31.3	108.7	0.5	151.1	2614.6	2017.9	99.3
73	00:02:27.5	00:01:31.3	108.7	0.6	155.9	2572.8	2908.1	117.8

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 05-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
56 F F F F F	00:21:18.0	00:21:17.3	92.7	0.3	168.0	323.4	735.5	153.0
57 F F F F F	00:24:13.5	00:24:13.2	-81.5	-0.3	141.7	319.1	379.2	122.7
58 F F F F F	00:26:11.5	00:26:11.2	-87.8	-0.3	164.0	333.5	387.3	114.2
59 F F F F F	00:28:50.0	00:28:49.8	117.2	0.5	141.0	328.5	472.5	138.0
60 F F F F F	00:31:20.0	00:31:20.0	-234.0	-0.2	170.1	712.4	2402.8	182.2
62 F F F F F	00:38:52.0	00:38:51.3	240.0	0.2	170.4	729.2	760.7	108.6
63 F F F F F	00:41:56.0	00:41:55.1	-303.0	1.2	138.0	700.4	1931.3	136.5
64 F F F F F	00:46:13.5	00:46:11.5	-158.5	-0.5	169.3	970.7	2211.2	150.7
66 F F F F F	00:51:58.5	00:51:56.0	595.5	1.0	166.5	1005.6	1832.7	148.7
67 F F F F F	00:55:13.0	00:55:11.0	-266.0	-0.4	140.4	988.0	1230.7	128.6
68 F F F F F	00:58:4.5	00:58:1.3	387.5	1.3	128.1	1509.1	3854.6	155.6
69 F F F F F	00:02:6.5	00:02:4.2	44.2	0.2	143.5	1402.5	1883.3	126.2
70 F F F F F	00:04:52.5	00:04:49.4	338.5	1.1	160.4	1510.7	3487.9	154.2
71 F F F F F	00:08:55.0	00:08:53.0	-221.3	-0.2	148.3	1474.2	2313.0	140.4
73 F F F F F	00:12:46.5	00:12:43.2	-254.2	-1.0	147.4	2022.3	3044.0	138.3
74 F F F F F	00:21:44.0	00:21:42.1	163.2	0.6	102.2	2630.7	2104.0	105.2
75 F F F F F	00:25:14.0	00:25:11.3	-121.2	-0.5	155.1	2602.2	2502.0	132.6

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 05-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 180

UH50A

MAR 12, 1981

MIC # 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
66	00:21:21.5	00:21:20.0	44.7	0.1	160.0	324.7	725.3	153.4
67	00:22:10.5	00:22:10.0	106.8	0.8	141.0	310.6	380.3	117.5
68	00:22:13.0	00:22:12.0	111.2	0.4	163.5	349.7	085.5	158.2
69	00:22:45.5	00:22:45.0	223.3	0.0	143.0	316.1	558.0	145.3
70	00:31:27.5	00:31:26.7	224.2	1.0	167.7	748.8	2012.3	158.3
71	00:31:55.5	00:31:54.8	337.5	1.1	167.8	748.8	772.3	104.3
72	00:41:47.5	00:41:46.8	100.3	0.4	130.5	602.6	8123.7	161.3
73	00:46:17.5	00:46:16.7	54.7	0.2	163.5	902.1	2022.3	150.6
74	00:52:00.0	00:52:00.0	54.7	0.2	165.4	905.0	1018.8	108.4
75	00:52:00.0	00:52:00.0	54.7	0.2	138.8	994.1	1787.4	148.2
76	00:52:00.0	00:52:00.0	54.7	0.2	168.9	1407.0	1568.0	107.1
77	00:52:00.0	00:52:00.0	54.7	0.2	144.0	1405.4	3050.4	151.0
78	00:52:00.0	00:52:00.0	54.7	0.2	132.5	1519.5	3175.1	151.4
79	00:52:00.0	00:52:00.0	54.7	0.2	160.4	1453.8	3077.0	151.2
80	00:52:00.0	00:52:00.0	54.7	0.2	147.9	2015.8	2393.5	122.5
81	00:52:00.0	00:52:00.0	54.7	0.2	153.0	2030.0	3889.7	148.2
82	00:52:00.0	00:52:00.0	54.7	0.2	151.5	2189.3	4793.7	158.0
83	00:52:00.0	00:52:00.0	54.7	0.2	161.2	2502.5	4852.7	147.5

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 05-4

TEST DATE: JUNE 25, 1980
 UH80A
 MIC 4 4 SIDELINE NORTH, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/O PPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
56	00:21:21.0	00:21:20.4	47.8	0.2	182.7	569.1	633.4	118.0
57	00:24:11.5	00:24:11.0	31.0	0.1	141.7	553.3	500.0	112.7
58	00:28:12.0	00:28:11.3	-43.3	-0.1	164.2	538.0	814.1	138.8
59	00:28:40.0	00:28:48.5	-173.5	-0.7	142.1	601.4	618.0	100.7
60	00:31:23.5	00:31:21.0	-158.3	-0.5	160.0	759.2	2256.6	164.6
61	00:32:54.0	00:32:53.3	200.7	1.0	170.2	799.7	807.0	100.2
62	00:41:54.5	00:41:53.8	377.7	1.8	137.7	802.2	1050.6	125.5
63	00:46:17.0	00:46:15.5	10.2	0.1	188.6	1070.8	1707.0	141.1
64	00:52:14.5	00:52:13.5	-123.3	-0.4	165.3	1070.8	1080.7	100.7
65	00:55:14.5	00:55:13.5	-102.8	-0.4	140.8	1110.4	1118.1	93.3
66	00:58:15.0	00:58:13.0	-223.3	-0.8	167.1	1527.7	1531.0	105.0
67	00:59:44.0	00:59:42.5	300.3	1.5	142.4	1534.5	3073.2	155.7
68	01:01:55.0	01:01:53.0	50.6	0.2	167.0	1580.8	1570.0	80.1
69	01:03:55.5	01:03:51.5	-74.0	-0.2	142.5	1576.0	2027.1	138.4
70	01:10:47.0	01:10:44.7	-230.2	-0.9	147.2	2032.2	2605.5	126.9
71	01:21:33.5	01:21:35.4	153.8	0.2	153.8	2055.5	3503.3	144.1
72	01:25:17.5	01:25:15.0	-120.7	-0.5	151.8	2022.0	2187.3	107.9
73	01:28:24.0	01:28:21.7	-9.5	0.0	166.6	2572.4	2572.3	90.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 05-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
765	000000	000000	44.7	0.1	160.0	640.7	655.6	102.2
766	000000	000000	11.4	-0.0	141.0	622.6	634.4	101.1
767	000000	000000	14.0	0.5	163.7	651.7	670.2	103.5
768	000000	000000	250.3	1.0	142.0	580.6	874.3	138.4
769	000000	000000	430.0	1.5	167.1	682.6	1241.0	127.6
770	000000	000000	303.7	1.0	170.2	672.6	987.8	106.6
771	000000	000000	360.7	1.5	157.7	644.1	848.2	95.6
772	000000	000000	105.5	-0.4	165.4	1152.8	1153.3	91.7
773	000000	000000	105.5	-0.4	146.8	1101.7	1167.9	83.9
774	000000	000000	112.0	-1.1	165.7	1032.2	1780.7	114.2
775	000000	000000	141.5	-1.0	144.5	1570.7	1610.9	101.2
776	000000	000000	143.0	-0.2	167.0	1010.6	1772.7	114.0
777	000000	000000	140.1	-0.6	140.1	1535.0	1553.4	98.7
778	000000	000000	149.9	0.0	149.9	2070.0	3570.0	144.5
779	000000	000000	154.0	0.4	154.0	2136.9	3717.0	144.9
780	000000	000000	149.0	-0.4	149.0	2065.4	2677.3	96.1
781	000000	000000	170.3	0.6	166.3	2065.7	3153.6	122.3

REC. TIME TIME PNLTM WAS RECORDED, RAD. TIME TIME PNLTM WAS RADIATED
 R/C AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG CLIMB OR DESCENT ANGLE
 GS GROUND SPEED, CPA CLOSEST POINT OF APPROACH
 SR SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 05-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH80A

MAR 12, 1981

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
76	00:21:20.0	00:21:10.0	500.0	0.0	133.1	921.3	1148.0	128.7
75	00:21:20.0	00:21:10.0	500.0	0.0	140.0	945.7	1366.2	130.2
74	00:21:20.0	00:21:10.0	500.0	0.0	124.2	928.4	1158.4	127.1
73	00:21:20.0	00:21:10.0	500.0	0.0	143.0	998.7	1413.2	135.0
72	00:21:20.0	00:21:10.0	500.0	0.0	187.0	1013.6	1593.5	137.0
71	00:21:20.0	00:21:10.0	500.0	0.0	170.4	1055.0	1371.1	129.7
70	00:21:20.0	00:21:10.0	500.0	0.0	130.0	1175.4	1426.4	124.5
69	00:21:20.0	00:21:10.0	500.0	0.0	163.0	1311.4	1896.1	136.2
68	00:21:20.0	00:21:10.0	500.0	0.0	108.0	1200.7	1872.2	138.0
67	00:21:20.0	00:21:10.0	500.0	0.0	140.0	1388.1	1369.4	88.0
66	00:21:20.0	00:21:10.0	500.0	0.0	185.0	1676.5	2395.3	138.0
65	00:21:20.0	00:21:10.0	500.0	0.0	140.0	1740.4	1740.4	30.0
64	00:21:20.0	00:21:10.0	500.0	0.0	130.0	1736.5	4004.6	154.3
63	00:21:20.0	00:21:10.0	500.0	0.0	140.1	1778.5	1800.7	100.7
62	00:21:20.0	00:21:10.0	500.0	0.0	140.0	2228.8	2228.0	88.5
61	00:21:20.0	00:21:10.0	500.0	0.0	153.3	2187.4	3578.0	142.7
60	00:21:20.0	00:21:10.0	500.0	0.0	152.4	2233.8	3320.0	137.7
59	00:21:20.0	00:21:10.0	500.0	0.0	165.1	2640.0	2656.3	94.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CS-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC #10 CENTERLINE CENTER, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
55	00:00:00	00:00:00	47.8	0.3	168.7	326.4	391.8	189.6
56	00:00:00	00:00:00	78.8	0.3	141.6	337.7	462.2	134.9
57	00:00:00	00:00:00	143.3	0.1	104.2	341.5	670.8	149.4
58	00:00:00	00:00:00	183.7	0.7	143.4	331.8	570.0	144.4
59	00:00:00	00:00:00	451.3	1.5	165.6	731.1	734.0	95.1
60	00:00:00	00:00:00	293.7	1.0	170.2	745.9	732.0	96.3
61	00:00:00	00:00:00	284.3	0.9	139.6	761.9	1345.7	148.6
62	00:00:00	00:00:00	254.7	0.9	132.3	983.0	1513.0	139.0
63	00:00:00	00:00:00	233.3	0.9	135.3	1002.0	1170.0	121.8
64	00:00:00	00:00:00	214.4	0.9	139.0	994.5	1391.3	134.4
65	00:00:00	00:00:00	279.5	0.9	104.8	1099.4	1317.4	184.9
66	00:00:00	00:00:00	403.0	1.3	140.3	1699.0	4111.7	157.9
67	00:00:00	00:00:00	283.7	0.9	105.5	1831.4	1827.5	189.0
68	00:00:00	00:00:00	254.3	1.1	149.4	1450.8	3074.0	151.2
69	00:00:00	00:00:00	254.3	1.0	147.4	2026.0	2642.0	129.0
70	00:00:00	00:00:00	191.0	0.4	154.0	2042.0	3541.2	145.0
71	00:00:00	00:00:00	109.8	0.4	150.8	2216.3	2704.4	131.7
72	00:00:00	00:00:00	24.7	0.1	163.1	2575.8	2530.0	99.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 05-B

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC #1H CENTERLINE CENTER, 33FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
55	00:21:20.0	00:21:19.4	58.2	0.2	168.1	294.1	633.2	152.9
56	00:24:11.0	00:24:10.6	78.2	-0.3	141.6	285.0	434.4	137.2
57	00:26:12.0	00:26:11.4	-43.3	-0.1	164.2	299.2	650.1	151.3
58	00:28:47.5	00:28:47.0	188.7	0.7	143.4	293.7	547.8	147.0
59	00:31:00.0	00:31:00.1	430.3	1.5	167.1	699.4	985.3	134.8
60	00:32:53.4	00:32:53.4	229.7	1.0	170.2	719.7	710.8	99.1
61	00:41:52.5	00:41:51.3	224.3	0.0	130.6	688.4	1385.3	149.7
62	00:46:19.0	00:46:18.8	87.7	-0.3	127.8	958.0	1356.0	135.2
63	00:50:13.5	00:50:12.6	-192.5	-0.7	165.2	989.2	1071.4	115.2
64	00:55:10.5	00:55:09.6	-141.0	-0.2	138.8	961.6	1275.4	131.1
65	00:58:11.5	00:58:10.4	-164.7	-0.6	165.2	1473.0	2210.0	135.5
66	01:00:55.5	01:00:55.9	222.3	1.1	144.0	1465.2	2045.2	150.2
67	01:04:56.0	01:04:56.4	222.3	-0.7	163.1	1488.5	2080.2	149.4
68	01:08:54.5	01:08:52.8	-143.3	-0.5	149.0	1447.2	1675.0	132.0
69	01:10:41.0	01:10:37.5	153.2	0.6	153.2	1695.0	3926.2	149.5
70	01:12:36.3	01:12:35.4	153.6	-0.2	153.6	2009.1	3479.7	144.7
71	01:15:25.1	01:15:25.4	-163.2	-0.4	130.8	1685.6	2874.0	132.1
72	01:18:26.6	01:18:26.7	60.2	0.2	166.1	2514.0	2562.4	90.2

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CS-9

TEST DATE: JUNE 25, 1980
 UH60A
 MIC #50 SIDELINE SOUTH, GROUND
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	G/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
56	0:21:21.5	0:21:20.0	44.7	0.1	169.0	842.7	657.5	102.2
57	0:24:10.5	0:24:09.0	122.5	0.5	141.6	824.7	814.0	129.0
58	0:28:13.5	0:28:12.0	142.7	0.6	163.7	853.7	872.2	103.5
59	0:28:47.5	0:28:46.0	158.7	0.7	143.4	882.8	775.0	131.3
60	0:31:30.0	0:31:27.0	430.3	1.5	167.1	985.6	1243.2	127.6
61	0:33:53.0	0:33:52.0	210.2	0.7	160.8	975.0	1001.2	110.7
62	0:41:55.0	0:41:55.2	303.0	1.0	138.0	847.4	874.5	104.3
63	0:46:17.0	0:46:15.4	10.2	0.1	168.6	1132.1	1771.2	140.3
64	0:52:14.0	0:52:12.0	-143.0	-0.5	165.1	1156.2	1202.4	106.0
65	0:55:13.3	0:55:12.0	-189.3	-0.4	140.2	1106.3	1105.3	90.1
66	0:58:13.3	0:58:11.6	-312.5	-1.1	165.1	1635.0	1864.3	118.7
67	0:59:17.5	0:59:16.1	-41.5	-0.8	144.5	1583.4	1814.7	101.3
68	0:59:17.5	0:59:16.1	-52.2	-0.8	168.4	1623.4	1842.2	118.2
69	0:59:17.5	0:59:16.1	-145.3	-0.6	149.1	1539.4	1557.2	98.7
70	0:59:17.5	0:59:16.1	-145.3	-0.6	145.2	2022.8	2102.3	97.8
71	0:59:17.5	0:59:16.1	-145.3	-0.6	154.9	2140.7	3722.0	144.2
72	0:59:17.5	0:59:16.1	-145.3	-0.6	148.3	2069.3	2084.0	83.2
73	0:59:17.5	0:59:16.1	-145.3	-0.6	167.5	2669.6	2740.6	103.1

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, G/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C6 Summary
Bell 206-L June 26, 1981
Flight Path Tracking Plots and Position Data

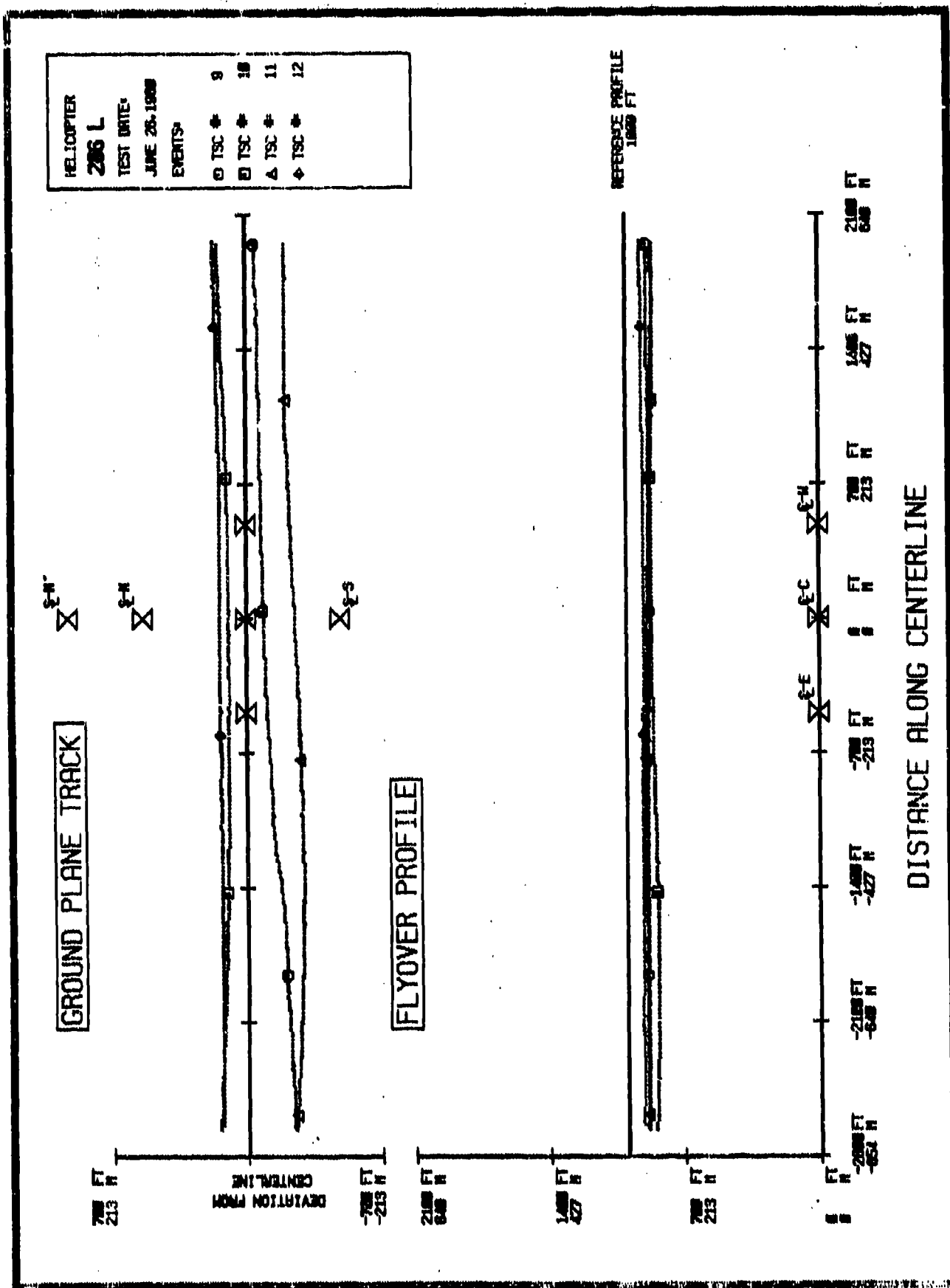
1. FLIGHT PATH TRACKING PLOTS

Event No.	Plot Fig No.	Operation			
1	C6-1	300 Ft. LFO	115 kts	Target Speed	
2	"	"	"	"	
3	"	"	"	"	
4	"	"	"	"	
5	C6-2	700 Ft. LFO	115 kts	Target Speed	
6	"	"	"	"	
7	"	"	"	"	
8	"	"	"	"	
9	C6-3	1000 Ft. LFO	115 kts	Target Speed	
10	"	"	"	"	
11	"	"	"	"	
12	"	"	"	"	
13	C6-4	1500 Ft. LFO	115 kts	Target Speed	
14	"	"	"	"	
15	"	"	"	"	
16	"	"	"	"	
18	C6-5	2000 Ft. LFO	115 kts	Target Speed	
19	"	"	"	"	

2. POSITION DATA TABLES

Table No.	Microphone
C6-1	Mic. 1, Centerline Center 4 ft.
C6-2	Mic. 2, Centerline 150m West 4 ft.
C6-3	Mic. 3, Centerline 150m East 4 ft.
C6-4	Mic. 4, Sideline 164m North 4 ft.
C6-5	Mic. 5, Sideline 150m South 4 ft.
C6-6	Mic. 6, Sideline 284m North 4 ft.
C6-7	Mic. 1G, Centerline Center (Ground)
C6-8	Mic. 1H, Centerline Center 33 ft.
C6-9	Mic. 5G, Sideline 150m South (Ground)

FIGURE C6-3



HELICOPTER
206 L

TEST DATE:
JUNE 28, 1988

EVENTS:

- TSC # 13
- TSC # 14
- △ TSC # 15
- ◆ TSC # 16

GROUND PLANE TRACK

FLYOVER PROFILE

REFERENCE PROFILE

DISTANCE ALONG CENTERLINE

Distance (FT)	Ground Plane Track (FT)	Flyover Profile (FT)	Reference Profile 1 (FT)	Reference Profile 2 (FT)
0	-213	206	206	206
100	-213	206	206	206
200	-213	206	206	206
300	-213	206	206	206
400	-213	206	206	206
500	-213	206	206	206
600	-213	206	206	206
700	-213	206	206	206
800	-213	206	206	206
900	-213	206	206	206
1000	-213	206	206	206

✕



DEVIATION FROM
CENTRAL LINE

2

FLYOVER PROFILE

REFERENCE PROFILE
1500 FI

DISTANCE ALONG CENTERLINE

TABLE C6-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 28, 1980
208L

FAA/AEE 120
MAR 12, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1 F	5:41:48.5	5:41:48.3	30.3	0.2	106.5	231.6	257.6	116.0
2 F	5:44:17.0	5:44:16.8	-97.2	-0.5	121.9	248.6	266.2	110.9
3 F	5:46:57.0	5:46:56.7	154.3	0.8	108.7	232.4	338.1	136.6
4 F	5:49:18.5	5:49:18.2	138.7	0.8	127.1	222.8	342.0	139.3
5 F	5:52:30.5	5:52:30.0	-108.5	-0.5	117.4	248.8	678.7	128.3
6 F	5:55:25.5	5:55:24.8	115.2	0.5	127.5	235.9	777.2	122.4
7 F	5:58:48.0	5:58:47.5	-38.0	-0.2	113.3	582.8	614.2	166.5
8 F	6:1:34.0	6:1:33.1	32.3	0.2	122.5	602.5	908.7	142.4
9 F	6:7:14.5	6:7:13.7	20.5	0.1	112.2	222.5	909.4	164.0
10 F	6:10:9.5	6:10:8.1	393.2	1.3	122.8	262.7	1531.7	146.7
11 F	6:14:2.0	6:14:1.1	275.7	1.4	111.2	221.1	991.3	111.7
12 F	6:18:11.0	6:18:10.2	-38.3	-0.2	125.7	914.5	920.1	96.3
13 F	6:22:23.5	6:22:22.2	113.5	0.8	111.8	1331.3	1458.2	113.9
14 F	6:25:23.0	6:25:21.6	111.8	0.5	122.5	1366.8	1604.5	121.6
15 F	6:32:14.0	6:32:12.7	174.2	0.9	116.8	1353.4	1490.3	114.7
16 F	6:36:13.0	6:36:11.8	182.7	0.7	122.8	1382.8	1572.8	112.0
17 F	6:45:20.0	6:45:18.3	115.2	0.5	127.0	1046.8	1947.2	29.4
18 F	6:49:31.0	6:49:28.8	71.5	0.4	111.3	1045.5	2328.7	123.3

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C.6-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L

FAA/AEE 120
MAR 12, 1981

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	5:41:48.0	5:41:45.8	3.5	0.0	108.7	230.3	240.5	108.7
2	5:44:00.0	5:44:08.7	0.3	0.0	121.8	247.2	308.3	188.8
3	5:46:55.0	5:46:54.8	41.7	0.2	108.0	225.0	251.0	115.0
4	5:48:21.5	5:48:21.3	0.0	0.4	126.5	227.0	248.7	118.5
5	5:52:00.0	5:52:08.5	148.0	-0.7	116.8	553.3	888.2	108.4
6	5:55:00.0	5:55:09.0	8.8	0.0	128.4	822.7	825.8	95.7
7	5:58:45.5	5:58:44.4	8.8	-0.3	118.5	500.0	840.3	118.0
8	1:37:00.0	1:36:22.2	10.8	-0.0	127.8	808.0	868.2	135.6
9	1:41:11.0	1:41:10.1	15.0	-0.0	113.1	881.2	970.7	114.8
10	1:43:00.0	1:43:08.1	43.5	0.2	126.2	860.2	917.8	108.7
11	1:43:50.0	1:43:58.1	73.5	1.4	111.6	902.0	1004.0	115.0
12	1:48:11.0	1:48:10.6	132.7	-0.1	120.2	915.0	1048.2	110.2
13	1:52:00.0	1:52:08.6	70.7	-0.4	118.0	1328.6	1545.2	120.2
14	1:55:00.0	1:55:04.1	351.2	1.6	123.4	1381.3	1508.2	120.2
15	1:58:11.0	1:58:09.7	12.2	0.1	111.4	1243.1	1500.1	118.0
16	2:01:12.0	2:01:19.2	115.0	1.3	128.4	1302.7	2056.0	137.8
17	2:04:00.0	2:04:12.2	115.0	0.5	127.0	1051.0	2012.3	104.2
18	2:07:00.0	2:07:27.0	170.5	0.0	111.5	1552.3	2257.2	100.1

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
208L

FAA/AEE 120
MAR 12, 1981

MIC # 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	05:41:52.5	05:41:52.3	104.7	0.8	105.8	232.0	280.0	63.6
2	05:44:5.5	05:44:5.3	-70.7	-0.9	122.1	251.0	288.2	69.2
3	05:47:1.5	05:47:1.3	141.5	0.7	107.0	241.0	280.6	68.2
4	05:49:17.5	05:49:17.3	83.0	0.4	127.0	216.7	280.7	72.1
5	05:52:38.0	05:52:38.5	30.5	0.1	117.0	540.0	580.5	68.7
6	05:55:00.0	05:55:05.4	74.0	0.3	122.0	624.5	648.0	74.5
7	05:58:05.5	05:58:02.0	23.5	0.1	113.1	527.3	620.1	71.3
8	06:1:34.0	06:1:33.4	38.3	0.2	138.5	606.5	640.8	111.0
9	06:7:18.0	06:7:17.2	61.3	0.2	112.1	226.5	287.0	91.2
10	06:14:8.0	06:14:7.2	32.5	0.2	100.0	234.8	268.8	75.2
11	06:18:10.0	06:18:0.2	-45.8	-0.2	126.0	918.3	934.0	70.5
12	06:22:27.8	06:22:27.8	84.7	0.4	110.7	1328.8	1328.8	90.7
13	06:25:23.8	06:25:23.8	277.0	1.3	124.6	1355.0	1355.8	87.1
14	06:28:21.7	06:28:21.7	78.8	0.4	108.0	1361.8	1468.2	68.2
15	06:32:59.7	06:32:59.7	-238.0	-1.1	122.1	1393.4	3138.0	153.2
16	06:45:18.2	06:45:18.2	197.3	0.6	126.3	1940.8	1840.8	84.3
17	06:49:39.3	06:49:39.3	56.5	0.3	112.7	1925.0	1942.5	84.0

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C5-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
 806L
 MIC # 4 SIDELINE NORTH, 4 FT

FAA/AEE 120
MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	00:41:48.5	00:41:48.0	30.3	0.2	106.6	586.6	608.8	105.5
2	00:44:47.5	00:44:47.0	-87.3	-0.5	121.6	565.1	566.5	94.1
3	00:46:58.5	00:46:58.0	265.7	1.1	106.2	532.2	532.2	89.5
4	00:48:18.0	00:48:17.4	106.8	0.5	127.2	551.7	609.4	127.0
5	00:52:30.5	00:52:30.7	-108.5	-0.5	117.4	785.6	918.0	110.0
6	00:55:25.0	00:55:24.2	133.3	0.6	127.7	697.3	911.1	130.1
7	00:58:47.3	00:58:47.3	-38.0	-0.2	113.3	768.0	780.3	104.0
8	01:01:37.4	01:01:37.4	-7.2	-0.0	127.3	721.0	720.7	81.1
9	01:04:18.5	01:04:18.5	32.2	0.2	112.7	1053.4	1142.2	112.7
10	01:10:14.2	01:10:14.2	49.5	0.2	127.0	950.4	951.0	91.0
11	01:14:04.4	01:14:04.4	200.2	1.5	111.3	1156.3	1251.3	112.6
12	01:18:11.6	01:18:10.6	-32.7	-0.1	126.2	970.8	970.8	91.2
13	01:22:21.1	01:22:21.1	21.0	0.4	112.3	1410.4	1220.2	110.0
14	01:26:24.3	01:26:24.3	351.2	1.6	123.4	1354.0	1370.6	101.1
15	01:30:10.0	01:30:10.0	105.2	0.5	110.7	1500.1	1782.7	122.7
16	01:36:15.3	01:36:15.3	73.0	0.3	125.2	1300.1	1300.1	89.6
17	01:41:10.7	01:41:10.7	197.3	0.8	125.3	1000.4	2024.5	100.0
18	01:45:22.0	01:45:22.0	71.5	0.4	111.3	2005.2	2282.5	122.7

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L

FAA/AEE 120
MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	05:41:40.5	05:41:40.0	11.8	0.1	108.4	543.8	543.8	89.1
2	05:46:52.5	05:46:52.0	205.7	1.1	108.2	555.8	555.8	90.0
3	05:49:10.0	05:49:10.5	139.3	0.8	127.0	588.1	588.4	111.2
4	05:52:33.0	05:52:32.4	-100.0	-0.6	117.8	660.1	677.0	80.8
5	05:55:38.0	05:55:35.1	74.0	-0.3	122.0	884.0	988.2	114.1
6	05:58:40.5	05:58:42.8	-30.0	-0.2	113.1	788.8	778.0	84.5
7	06:01:36.0	06:01:35.2	11.8	0.1	127.4	820.5	905.5	112.0
8	06:07:10.0	06:07:10.8	67.7	0.3	113.3	965.5	987.1	88.7
9	06:10:10.5	06:10:10.8	22.7	0.1	128.0	1044.0	1078.7	75.4
10	06:14:03.5	06:14:02.7	218.0	1.1	110.3	918.4	924.4	96.5
11	06:18:00.5	06:18:00.4	-50.2	-0.9	125.7	1102.2	1201.0	113.4
12	06:22:20.5	06:22:22.2	150.2	0.8	110.8	1427.0	1482.3	91.3
13	06:26:20.5	06:26:22.5	250.0	1.1	124.3	1545.0	1682.8	113.3
14	06:30:13.0	06:30:11.0	147.8	0.8	111.0	1377.5	1611.3	121.3
15	06:35:14.0	06:35:12.5	45.2	0.2	126.1	1543.5	1689.7	108.7
16	06:45:17.0	06:45:15.1	188.5	0.7	120.4	2016.8	2115.8	107.6
17	06:49:37.0	06:49:35.2	-107.7	-1.0	112.5	2002.2	2010.0	93.0

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 28, 1980

FAA/AEE 120

206L

MAR 12, 1981

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1 F-E	5:41:47.5	5:41:46.6	25.7	0.1	106.0	950.2	1038.5	112.5
2 F-E	5:44:08.0	5:44:07.1	-70.0	-0.3	121.0	972.8	972.8	90.2
3 F-E	5:46:58.5	5:46:55.6	134.2	0.7	100.0	946.2	1055.3	116.2
4 F-E	5:49:18.5	5:49:17.6	132.7	0.2	127.1	980.8	1041.0	111.5
5 F-E	5:52:30.5	5:52:29.4	-108.5	-0.5	117.4	1157.0	1275.0	114.2
6 F-E	5:55:27.5	5:55:26.6	-50.7	-0.2	127.6	939.5	991.6	93.7
7 F-E	5:58:46.5	5:58:45.4	7.2	0.0	112.9	1000.5	1232.2	116.2
8 F-E	6:01:38.0	6:01:37.1	-7.2	-0.0	127.3	1030.5	1031.8	87.1
9 F-E	6:07:13.5	6:07:12.2	32.8	0.2	112.7	1348.5	1422.0	100.0
10 F-E	6:10:15.0	6:10:13.0	49.5	0.2	127.0	1202.0	1204.5	93.0
11 F-E	6:14:02.5	6:14:01.2	248.5	1.3	111.4	1476.0	1500.3	101.0
12 F-E	6:18:11.5	6:18:10.4	-32.7	-0.1	126.2	1202.0	1204.0	93.3
13 F-E	6:22:25.5	6:22:24.1	161.0	0.2	111.1	1600.5	1625.4	92.0
14 F-E	6:26:26.0	6:26:24.7	421.3	1.0	123.0	1488.0	1498.7	97.2
15 F-E	6:32:18.0	6:32:14.4	261.5	1.0	109.7	1741.3	1786.5	90.7
16 F-E	6:36:18.5	6:36:15.1	73.0	0.3	125.2	1546.6	1547.2	91.6
17 F-E	6:45:19.0	6:45:17.1	172.2	0.2	127.1	2142.7	2158.5	96.5
18 F-E	6:49:31.5	6:49:29.3	40.0	0.2	111.5	2153.6	2473.4	110.5

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-7

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 TEST DATE: JUNE 26, 1980
 006L
 MIC #10 CENTERLINE CENTER, GROUND

 FAA/AEE 120
 MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	5:41:48.6	5:41:48.9	30.3	0.8	108.5	235.6	261.2	115.6
2	5:44:57.0	5:44:58.8	-97.2	-0.5	121.0	252.6	270.7	111.1
3	5:46:57.0	5:46:58.7	154.3	0.8	102.7	238.4	310.8	128.1
4	5:48:18.5	5:48:18.8	132.7	0.8	127.1	228.8	344.6	138.8
5	5:52:39.5	5:52:39.9	-102.8	-0.5	117.4	250.7	281.8	122.1
6	5:55:46.5	5:55:45.8	20.2	0.1	122.1	260.8	270.4	110.1
7	5:58:46.5	5:58:45.8	7.2	0.0	118.0	262.9	785.4	120.2
8	6:01:35.5	6:01:34.8	20.0	0.1	127.1	212.5	745.8	124.2
9	6:07:14.5	6:07:13.7	20.5	0.1	112.8	286.5	913.7	104.0
10	6:10:09.0	6:10:07.5	315.5	1.4	122.8	272.6	1094.8	140.0
11	6:14:01.5	6:14:00.6	200.2	1.5	111.3	225.0	1035.0	116.8
12	6:18:09.0	6:18:08.1	-81.2	-0.4	125.4	218.5	1078.4	121.4
13	6:22:22.5	6:22:21.1	81.0	0.4	112.3	1335.3	1585.0	120.9
14	6:26:22.5	6:26:22.1	230.7	1.1	122.6	1370.7	1560.5	118.5
15	6:32:13.5	6:32:12.1	120.2	0.9	111.3	1357.4	1541.3	118.3
16	6:36:08.5	6:36:06.4	61.0	0.3	122.3	1322.6	2316.0	143.1
17	6:45:14.5	6:45:12.5	161.0	0.7	125.0	1050.8	2289.0	121.6
18	6:49:32.0	6:49:30.0	21.3	0.1	111.5	1040.5	2222.5	119.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 05-B

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 28, 1980

FAA/AEE 120

208L

MAR 12, 1981

MIC 81H CENTERLINE CENTER, 33FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	5:41:49.0	5:41:48.8	16.0	0.1	108.7	202.6	203.2	94.4
2	5:44:0.0	5:44:0.2	-148.2	-0.2	121.0	210.7	303.1	133.6
3	5:46:57.0	5:46:56.7	154.3	0.2	102.7	203.5	316.6	140.0
4	5:49:18.5	5:49:18.8	132.7	0.0	127.1	193.0	320.6	142.8
5	5:52:30.5	5:52:29.8	-102.5	-0.5	117.4	512.3	653.4	127.5
6	5:55:20.0	5:55:20.4	74.0	0.3	122.0	597.8	688.3	119.4
7	5:58:47.5	5:58:47.0	-142.5	-0.2	112.9	559.0	680.0	115.8
8	6:1:35.5	6:1:34.0	20.0	0.1	127.1	570.0	715.5	125.9
9	6:7:13.5	6:7:12.7	32.0	0.2	112.7	853.7	951.6	116.2
10	6:10:14.5	6:10:13.8	55.0	0.2	120.6	839.8	847.7	97.8
11	6:14:1.5	6:14:0.8	200.2	1.5	111.3	803.3	1005.7	117.4
12	6:18:9.5	6:18:8.8	-52.2	-0.2	125.7	825.0	957.7	118.2
13	6:22:20.5	6:22:19.0	-143.0	-0.2	112.0	1302.3	1755.0	133.2
14	6:26:23.0	6:26:21.0	111.8	0.3	122.5	1332.5	1878.5	122.0
15	6:32:11.5	6:32:9.0	12.5	0.1	111.1	1224.7	1753.6	120.9
16	6:36:12.5	6:36:11.1	240.7	1.1	122.5	1360.0	1802.2	121.9
17	6:40:11.5	6:40:9.1	110.5	0.5	125.3	1017.0	2710.1	135.1
18	6:40:20.0	6:40:20.7	170.5	0.0	111.5	1016.5	2554.7	131.4

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 28, 1980

FAA/AEE 120

808L

MAR 12, 1981

MIC #50 SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
1	5:41:40.0	5:41:40.5	16.0	0.1	100.7	845.3	851.0	88.9
2	5:44:28.5	5:44:28.0	-40.0	-0.2	101.0	838.7	802.1	110.5
3	5:48:52.5	5:48:52.0	205.7	1.1	103.2	857.4	857.4	80.0
4	5:49:10.0	5:49:12.5	130.3	0.2	127.0	820.8	807.0	111.1
5	5:52:33.0	5:52:32.4	-100.0	-0.5	117.5	872.4	881.0	80.2
6	5:55:22.0	5:55:22.1	74.0	-0.3	122.0	826.7	870.7	114.0
7	5:58:40.5	5:58:42.2	-30.0	-0.2	113.1	771.8	775.1	84.0
8	6:1:35.5	6:1:34.7	20.0	0.1	127.1	842.4	850.1	112.8
9	6:7:17.5	6:7:18.6	52.0	0.3	111.8	960.1	1020.1	71.2
10	6:10:9.0	6:10:7.4	315.5	1.4	125.0	1047.3	1010.8	144.7
11	6:14:3.5	6:14:2.7	212.0	1.1	110.3	922.3	922.2	90.5
12	6:12:0.5	6:12:3.4	-50.2	-0.3	125.7	1105.5	1204.0	113.4
13	6:22:24.0	6:22:22.7	112.2	0.8	111.5	1431.8	1519.2	109.8
14	6:22:24.0	6:22:22.5	220.0	1.1	124.3	1542.5	1625.7	113.3
15	6:32:12.5	6:32:11.0	105.2	0.5	110.7	1381.4	1669.0	124.2
16	6:36:0.0	6:36:6.0	177.8	0.2	126.0	1547.1	2312.0	132.1
17	6:45:14.5	6:45:12.4	181.0	0.7	125.0	2020.8	2347.1	120.8
18	6:40:30.0	6:40:27.8	155.7	0.2	111.2	2012.1	2504.4	126.6

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED.
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C7 Summary
UH60A June 26, 1980
Flight Path Tracking Plots and Position Data

1. FLIGHT PATH TRACKING PLOTS

Event No.	Plot Fig No.	Operation
21	C7-1	Takeoff
23	"	"
25	"	"
27	"	"
29	"	"
31	"	"
33	C7-2	Takeoff
35	"	"
39	"	"
41	"	"
22	C7-3	Approach
24	"	"
26	"	"
28	"	"
30	"	"
32	"	"
34	C7-4	Approach
36	"	"
38	"	"
40	"	"
42	"	"
43	C7-5	500 Ft. LFO 140 kts Torque 90%
44	"	" "
45	"	" "
46	"	" "
47	"	" "

2. POSITION DATA TABLES

Table No.

Microphone

C7-1	Mic. 1, Centerline Center 4 ft.
C7-2	Mic. 1G, Centerline Center (Ground)
C7-3	Mic. 1H, Centerline Center 33 ft.
C7-4	Mic. 2, Centerline 150m West 4 ft.
C7-5	Mic. 3, Centerline 150m East 4 ft.
C7-6	Mic. 4, Sideline 164m North 4 ft.
C7-7	Mic. 5, Sideline 150m South 4 ft.
C7-8	Mic. 5G, Sideline 150m South (Ground)
C7-9	Mic. 6, Sideline 284m North 4 ft.

HELICOPTER
UH-1B

TEST DATE
JUNE 26-1968

EVENTS:
 ○ TSC # 21
 □ TSC # 23
 △ TSC # 25
 ◆ TSC # 27
 + TSC # 29
 X TSC # 31

GROUND PLANE TRACK

CLIMB PROFILE

DISTANCE ALONG CENTERLINE

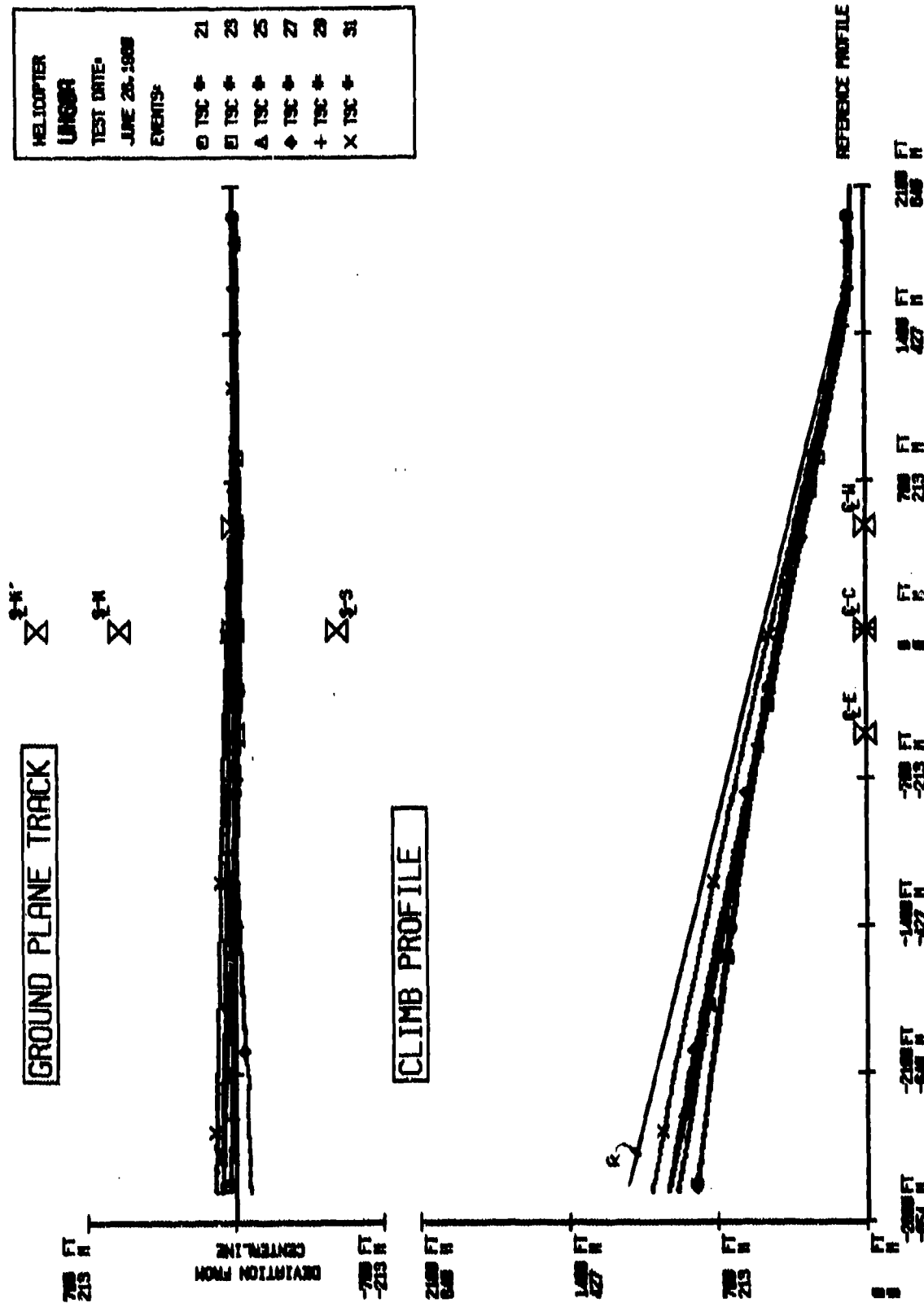
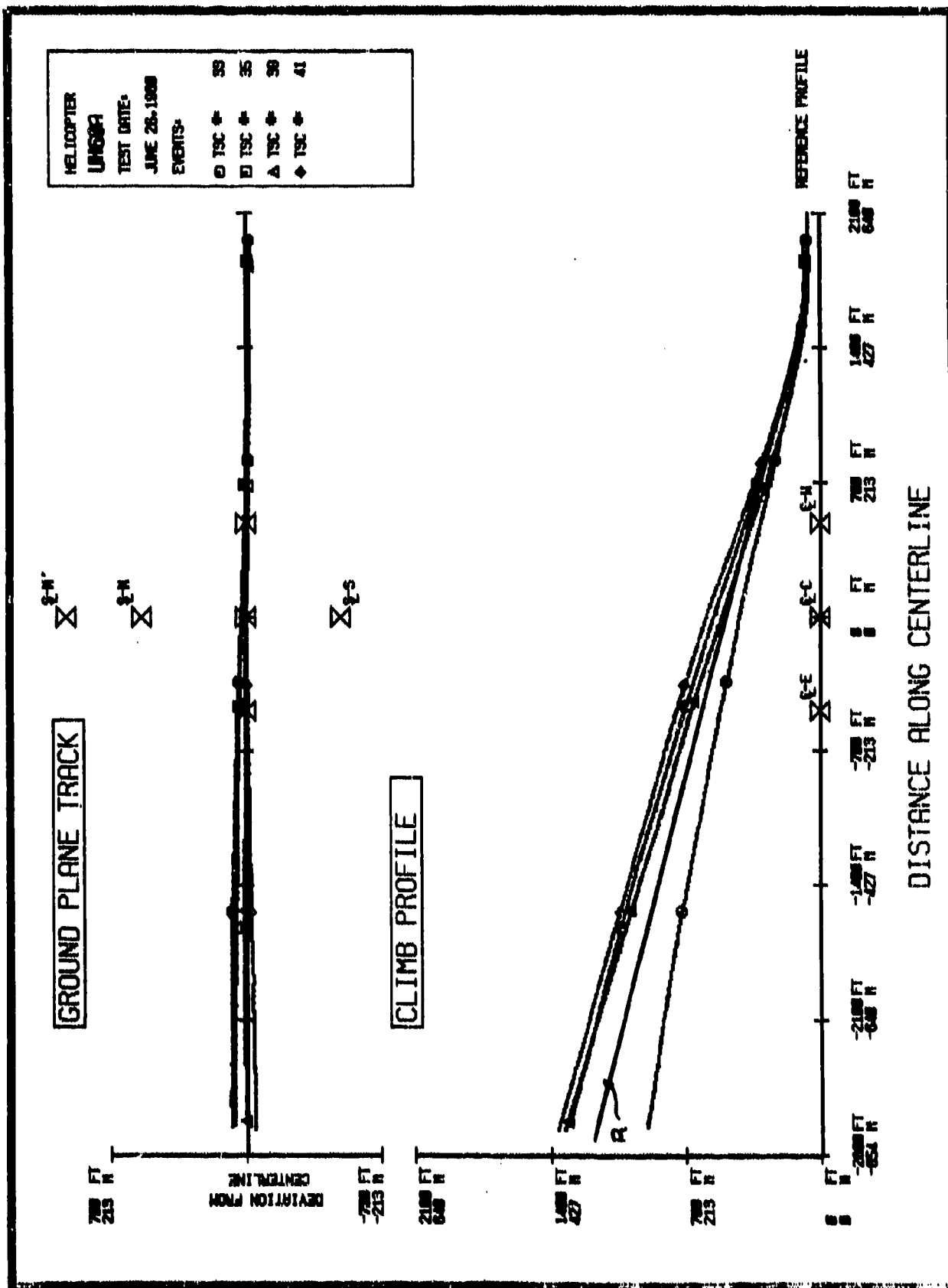
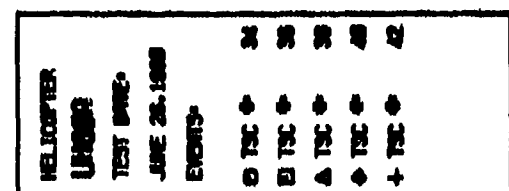


FIGURE C7-2



[illegible]

GROUND PLANE TRACK

2-M
X

2-M
X

2-M
X

FLYOVER PROFILE

HELIOPTER	TEST DATE	EVENTS
UH-60A	JUNE 26, 1988	1 TSC
		2 TSC
		3 TSC
		4 TSC
		5 TSC

REFERENCE PROFILE
500 FT

DISTANCE ALONG CENTERLINE

HELICOPTER						
UNION						
TEST DATE:						
JUNE 28, 1988						
EVENTS:						
0 TSC #	43					
1 TSC #	44					
2 TSC #	45					
3 TSC #	46					
4 TSC #	47					

TABLE C7-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 28, 1980
UH60A

FAA/AEE 120
MAR 12, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEB	7:28:30.0	7:28:29.7	1250.0	10.7	65.8	322.0	395.7	100.6
22 DEB	7:34:42.0	7:34:42.1	-1022.0	-10.0	88.2	426.2	440.5	107.2
23 DEB	7:38:27.0	7:38:27.0	1440.0	11.7	80.0	370.1	370.0	92.8
24 DEB	7:42:17.0	7:42:17.0	-1000.0	-10.7	87.4	403.0	422.0	100.7
25 DEB	7:46:06.0	7:46:06.0	1468.0	11.6	71.3	381.0	390.0	101.0
26 DEB	7:50:57.0	7:50:57.0	-1057.0	-10.0	87.7	377.7	399.0	108.8
27 DEB	7:54:11.0	7:54:11.0	1588.0	10.7	71.7	371.1	378.4	95.3
28 DEB	7:58:00.0	7:58:00.0	-1000.0	-10.0	90.1	404.0	431.4	110.2
29 DEB	8:01:48.0	8:01:48.0	1388.0	10.0	73.0	387.0	405.0	101.4
30 DEB	8:05:37.0	8:05:37.0	-1001.0	-10.4	70.5	390.0	437.7	128.9
31 DEB	8:09:17.0	8:09:17.0	1670.0	10.0	85.4	400.0	435.1	97.0
32 DEB	8:13:00.0	8:13:00.0	-1011.0	-10.1	87.7	400.0	407.7	125.0
33 DEB	8:16:40.0	8:16:40.0	1410.0	11.5	73.0	400.0	411.1	80.0
34 DEB	8:20:20.0	8:20:20.0	-1407.0	-10.0	70.0	411.1	550.0	132.5
35 DEB	8:24:00.0	8:24:00.0	2100.0	10.0	60.7	510.4	500.0	61.0
36 DEB	8:27:40.0	8:27:40.0	-1570.0	-10.1	71.7	400.0	420.0	140.0
37 DEB	8:31:20.0	8:31:20.0	1570.0	10.0	84.1	300.0	420.0	127.0
38 DEB	8:35:00.0	8:35:00.0	-1000.0	-10.0	86.5	421.0	440.0	97.0
39 DEB	8:38:40.0	8:38:40.0	1000.0	10.0	70.0	404.0	440.0	114.0
40 DEB	8:42:20.0	8:42:20.0	-1000.0	-10.0	80.0	551.0	614.4	60.0
41 DEB	8:46:00.0	8:46:00.0	1000.0	10.0	70.0	400.0	450.0	118.0
42 DEB	8:49:40.0	8:49:40.0	-1000.0	-10.0	100.7	500.0	640.0	130.0
43 DEB	8:53:20.0	8:53:20.0	1000.0	10.0	140.1	540.0	740.0	132.0
44 DEB	8:57:00.0	8:57:00.0	-1000.0	-10.0	157.0	471.0	504.0	134.4
45 DEB	9:00:40.0	9:00:40.0	1000.0	10.0	140.0	401.0	700.0	127.0

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED.
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE.
GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH.
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED.
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE.

TABLE C7-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 180

UH50A

JAN 17, 1981

MIC #10 CENTERLINE CENTER, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEP	7:26:20.0	7:26:22.6	1259.2	10.7	65.7	382.2	439.9	116.8
22 ARR	7:34:42.0	7:34:41.6	-1370.2	-5.6	88.3	484.7	475.6	116.7
23 DEP	7:38:20.5	7:38:20.1	1438.8	11.7	88.8	374.0	427.7	81.0
24 ARR	7:42:4.5	7:42:4.1	-901.7	-5.8	66.4	467.9	463.0	112.4
25 DEP	7:45:30.0	7:45:29.7	1468.2	11.5	71.9	385.8	394.1	101.8
26 ARR	7:50:57.0	7:50:56.8	-1557.7	-6.8	87.7	381.8	483.4	108.9
27 DEP	7:54:0.5	7:54:0.2	1500.3	12.9	71.8	373.7	392.7	105.4
28 ARR	7:58:35.5	7:58:35.1	-1882.2	-5.4	80.9	403.8	418.1	100.7
29 DEP	8:1:48.0	8:1:47.8	1985.7	10.6	70.8	401.0	435.3	102.5
30 ARR	8:7:23.0	8:7:22.6	-731.0	-5.4	76.5	393.0	491.1	126.7
31 DEP	8:18:17.0	8:18:16.6	1683.0	13.5	68.5	434.8	452.2	108.9
32 ARR	8:22:32.0	8:22:31.1	-1042.3	-5.4	87.3	403.4	470.0	110.0
33 DEP	8:26:1.5	8:26:1.1	1455.3	11.8	68.0	400.0	423.6	104.8
34 ARR	8:30:37.5	8:30:37.0	-1403.7	-3.1	76.1	415.4	520.0	127.1
35 DEP	8:34:18.5	8:34:18.0	2070.5	13.4	67.7	523.8	554.7	100.4
36 ARR	8:39:50.0	8:39:49.0	-1463.5	-3.7	71.1	412.2	514.3	122.7
37 DEP	8:44:14.5	8:44:14.1	2774.0	16.9	62.9	439.5	497.0	79.0
38 ARR	8:49:32.0	8:49:31.1	-2152.2	-3.8	68.2	435.5	485.8	83.7
39 DEP	8:54:57.0	8:54:56.8	2415.2	16.1	72.4	466.8	481.2	122.0
40 ARR	9:0:42.5	9:0:42.0	-2415.2	-3.8	69.1	557.7	557.0	85.4
41 DEP	9:0:0.0	9:0:0.0	2415.2	16.1	72.4	466.8	481.2	122.0
42 ARR	9:0:42.5	9:0:42.0	-2415.2	-3.8	69.1	557.7	557.0	85.4
43 DEP	9:0:0.0	9:0:0.0	2415.2	16.1	72.4	466.8	481.2	122.0
44 ARR	9:0:42.5	9:0:42.0	-2415.2	-3.8	69.1	557.7	557.0	85.4
45 DEP	9:11:42.0	9:11:41.4	451.0	1.0	160.7	550.4	552.2	129.4
46 ARR	9:19:56.0	9:19:55.5	-105.2	-0.1	142.3	553.3	550.0	88.6
47 DEP	9:19:37.5	9:19:37.1	86.2	0.0	157.0	478.5	567.3	134.2
48 ARR	9:19:37.5	9:19:37.1	86.2	0.1	142.7	492.0	512.0	103.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 07-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 180

UH60A

MAR 12, 1981

MIC #1H CENTERLINE CENTER, 33FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEEP	7:28:30.0	7:28:29.7	1259.2	10.7	65.8	360.7	368.3	101.7
22 DEEP	7:28:48.0	7:28:41.8	1270.2	15.6	68.3	368.2	443.1	117.7
23 DEEP	7:28:27.0	7:28:26.7	1435.3	11.8	69.1	341.0	368.8	104.3
24 DEEP	7:42:1.1	7:42:0.4	1461.7	15.8	89.4	374.8	430.4	119.5
25 DEEP	7:45:30.0	7:45:29.7	1488.2	11.8	71.3	353.5	363.2	103.3
26 DEEP	7:50:56.5	7:50:56.2	1498.0	10.8	87.8	348.0	400.7	110.4
27 DEEP	7:54:1.1	7:54:0.7	1522.7	12.9	71.7	346.5	348.8	98.8
28 DEEP	7:58:35.5	7:58:35.2	1582.2	15.4	80.0	378.0	377.4	100.5
29 DEEP	8:1:48.5	8:1:48.2	1582.2	10.9	79.0	358.5	377.4	108.4
30 DEEP	8:7:23.5	8:7:23.1	1736.9	15.4	76.8	361.2	420.0	120.0
31 DEEP	8:12:17.5	8:12:17.1	1878.2	13.6	68.4	402.8	407.0	99.0
32 DEEP	8:18:3.0	8:18:2.7	1898.9	15.3	67.9	374.0	399.2	107.6
33 DEEP	8:18:8.0	8:18:7.7	1436.0	11.7	68.9	377.7	381.3	97.8
34 DEEP	8:30:38.0	8:30:37.6	1446.7	12.4	72.0	358.8	452.8	122.9
35 DEEP	8:34:20.0	8:34:19.6	1585.2	12.3	69.1	498.0	498.0	90.0
36 DEEP	8:39:50.9	8:39:49.8	1462.2	13.7	71.1	379.4	485.4	123.6
37 DEEP	8:49:14.0	8:49:13.7	1787.5	16.8	69.1	367.7	369.0	55.8
38 DEEP	8:53:21.5	8:53:21.1	2158.3	12.5	86.5	484.7	489.1	97.9
39 DEEP	8:57:7.0	8:57:6.7	1908.9	10.5	79.7	376.7	391.5	105.0
40 DEEP	9:0:42.0	9:0:41.5	1938.0	10.9	88.7	534.3	534.0	93.7
41 DEEP	9:0:42.0	9:0:41.5	1938.0	10.9	88.7	534.3	534.0	93.7
42 DEEP	9:0:42.0	9:0:41.5	1938.0	10.9	88.7	534.3	534.0	93.7
43 DEEP	9:0:42.0	9:0:41.5	1938.0	10.9	88.7	534.3	534.0	93.7
44 DEEP	9:11:43.0	9:11:42.8	1938.0	1.1	101.0	471.3	483.8	111.2
45 DEEP	9:13:55.5	9:13:55.0	1938.0	1.0	142.1	520.6	553.5	113.5
46 DEEP	9:16:12.5	9:16:12.1	1938.0	1.1	152.8	445.6	445.6	90.8
47 DEEP	9:18:37.5	9:18:37.1	1938.0	0.1	148.7	456.1	478.3	103.0

REC. TIME: TIME PNLTN WAS RECORDED, RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-4

POSITION DATA HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120
MAR 12, 1991

UH60A

MIC # 2 CENTERLINE WEST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEP	7:28:28.5	7:29:28.2	1302.7	11.2	84.7	297.7	298.6	85.6
22 ARR	7:34:48.0	7:34:45.7	-1382.7	-11.7	87.7	389.3	381.0	104.3
23 DEP	7:38:25.0	7:38:24.7	1383.7	11.1	88.7	375.4	317.8	60.1
24 ARR	7:42:28.0	7:42:27.7	-1387.0	-11.8	88.8	355.1	308.1	110.4
25 DEP	7:45:28.0	7:45:27.7	1504.2	11.3	71.2	281.1	320.9	59.7
26 ARR	7:51:51.0	7:51:50.8	-1544.7	-11.1	82.0	315.8	320.9	104.4
27 DEP	7:53:58.0	7:53:58.2	1511.5	11.8	71.5	272.8	309.3	63.8
28 ARR	7:58:38.0	7:58:38.2	-1540.1	-11.0	80.0	355.8	372.8	105.8
29 DEP	8:01:48.0	8:01:48.7	1412.3	11.0	78.1	268.8	328.8	49.6
30 ARR	8:07:27.7	8:07:27.7	-1723.0	-11.4	75.2	340.8	328.3	110.3
31 DEP	8:12:15.0	8:12:14.7	1850.0	13.3	69.0	316.3	440.0	122.2
32 ARR	8:18:28.0	8:18:28.1	-1934.7	-11.7	67.0	343.7	405.5	122.1
33 DEP	8:23:28.0	8:23:28.1	1571.7	11.8	62.5	308.7	359.9	65.5
34 ARR	8:29:42.0	8:29:41.1	-1832.0	-11.4	73.4	308.3	444.4	124.1
35 DEP	8:34:18.0	8:34:18.1	2279.0	11.4	67.7	308.4	462.3	124.0
36 ARR	8:39:55.0	8:39:55.6	-2124.0	-11.7	70.2	335.8	381.7	110.5
37 DEP	8:44:18.0	8:44:18.3	2190.7	11.7	67.2	335.8	434.4	123.3
38 ARR	8:49:18.0	8:49:18.6	-2190.7	-11.7	67.2	335.8	434.4	123.3
39 DEP	8:54:41.0	8:54:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
40 ARR	8:59:41.0	8:59:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
41 DEP	9:04:41.0	9:04:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
42 ARR	9:09:41.0	9:09:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
43 DEP	9:14:41.0	9:14:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
44 ARR	9:19:41.0	9:19:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
45 DEP	9:24:41.0	9:24:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
46 ARR	9:29:41.0	9:29:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
47 DEP	9:34:41.0	9:34:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
48 ARR	9:39:41.0	9:39:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
49 DEP	9:44:41.0	9:44:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
50 ARR	9:49:41.0	9:49:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
51 DEP	9:54:41.0	9:54:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
52 ARR	9:59:41.0	9:59:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
53 DEP	10:04:41.0	10:04:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
54 ARR	10:09:41.0	10:09:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
55 DEP	10:14:41.0	10:14:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
56 ARR	10:19:41.0	10:19:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
57 DEP	10:24:41.0	10:24:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
58 ARR	10:29:41.0	10:29:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
59 DEP	10:34:41.0	10:34:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
60 ARR	10:39:41.0	10:39:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
61 DEP	10:44:41.0	10:44:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
62 ARR	10:49:41.0	10:49:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
63 DEP	10:54:41.0	10:54:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
64 ARR	10:59:41.0	10:59:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
65 DEP	11:04:41.0	11:04:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
66 ARR	11:09:41.0	11:09:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
67 DEP	11:14:41.0	11:14:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
68 ARR	11:19:41.0	11:19:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
69 DEP	11:24:41.0	11:24:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
70 ARR	11:29:41.0	11:29:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
71 DEP	11:34:41.0	11:34:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
72 ARR	11:39:41.0	11:39:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
73 DEP	11:44:41.0	11:44:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
74 ARR	11:49:41.0	11:49:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
75 DEP	11:54:41.0	11:54:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
76 ARR	11:59:41.0	11:59:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
77 DEP	12:04:41.0	12:04:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
78 ARR	12:09:41.0	12:09:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
79 DEP	12:14:41.0	12:14:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
80 ARR	12:19:41.0	12:19:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
81 DEP	12:24:41.0	12:24:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
82 ARR	12:29:41.0	12:29:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
83 DEP	12:34:41.0	12:34:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
84 ARR	12:39:41.0	12:39:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
85 DEP	12:44:41.0	12:44:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
86 ARR	12:49:41.0	12:49:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
87 DEP	12:54:41.0	12:54:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
88 ARR	12:59:41.0	12:59:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
89 DEP	13:04:41.0	13:04:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
90 ARR	13:09:41.0	13:09:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
91 DEP	13:14:41.0	13:14:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
92 ARR	13:19:41.0	13:19:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
93 DEP	13:24:41.0	13:24:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
94 ARR	13:29:41.0	13:29:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
95 DEP	13:34:41.0	13:34:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
96 ARR	13:39:41.0	13:39:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
97 DEP	13:44:41.0	13:44:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
98 ARR	13:49:41.0	13:49:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3
99 DEP	13:54:41.0	13:54:41.1	2190.7	11.7	67.2	335.8	434.4	123.3
100 ARR	13:59:41.0	13:59:41.1	-2190.7	-11.7	67.2	335.8	434.4	123.3

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
MAR 12, 1981

TEST DATE: JUNE 26, 1980

UH60A

MIC # 3 CENTERLINE EAST, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEP	77:26:38.0	77:26:37.5	1157.0	0.7	88.8	476.0	578.3	55.7
22 DEP	77:34:40.5	77:34:40.1	1312.0	0.7	88.7	483.0	488.8	81.7
23 DEP	77:42:38.0	77:42:37.5	1336.0	0.7	88.1	488.8	478.5	80.3
24 DEP	77:48:38.0	77:48:37.5	1336.0	0.7	87.6	484.0	480.0	75.5
25 DEP	77:54:38.0	77:54:37.5	1401.0	0.7	87.4	488.4	506.1	72.4
26 DEP	77:59:38.0	77:59:37.5	1401.0	0.7	87.1	483.7	434.5	73.0
27 DEP	78:04:38.0	78:04:37.5	1401.0	0.7	87.1	483.7	503.1	73.9
28 DEP	78:09:38.0	78:09:37.5	1401.0	0.7	87.1	483.7	472.0	105.8
29 DEP	78:14:38.0	78:14:37.5	1388.0	0.7	87.1	483.7	503.1	88.0
30 DEP	78:19:38.0	78:19:37.5	1388.0	0.7	87.1	483.7	503.1	113.0
31 DEP	78:24:38.0	78:24:37.5	1388.0	0.7	87.1	483.7	503.1	74.0
32 DEP	78:29:38.0	78:29:37.5	1388.0	0.7	87.1	483.7	503.1	55.4
33 DEP	78:34:38.0	78:34:37.5	1388.0	0.7	87.1	483.7	503.1	55.4
34 DEP	78:39:38.0	78:39:37.5	1388.0	0.7	87.1	483.7	503.1	105.0
35 DEP	78:44:38.0	78:44:37.5	1388.0	0.7	87.1	483.7	503.1	70.0
36 DEP	78:49:38.0	78:49:37.5	1388.0	0.7	87.1	483.7	503.1	105.0
37 DEP	78:54:38.0	78:54:37.5	1388.0	0.7	87.1	483.7	503.1	98.0
38 DEP	78:59:38.0	78:59:37.5	1388.0	0.7	87.1	483.7	503.1	50.0
39 DEP	79:04:38.0	79:04:37.5	1388.0	0.7	87.1	483.7	503.1	81.1
40 DEP	79:09:38.0	79:09:37.5	1388.0	0.7	87.1	483.7	503.1	101.1
41 DEP	79:14:38.0	79:14:37.5	1388.0	0.7	87.1	483.7	503.1	108.0
42 DEP	79:19:38.0	79:19:37.5	1388.0	0.7	87.1	483.7	503.1	110.4
43 DEP	79:24:38.0	79:24:37.5	1388.0	0.7	87.1	483.7	503.1	67.1
44 DEP	79:29:38.0	79:29:37.5	1388.0	0.7	87.1	483.7	503.1	62.5
45 DEP	79:34:38.0	79:34:37.5	1388.0	0.7	87.1	483.7	503.1	
46 DEP	79:39:38.0	79:39:37.5	1388.0	0.7	87.1	483.7	503.1	
47 DEP	79:44:38.0	79:44:37.5	1388.0	0.7	87.1	483.7	503.1	
48 DEP	79:49:38.0	79:49:37.5	1388.0	0.7	87.1	483.7	503.1	
49 DEP	79:54:38.0	79:54:37.5	1388.0	0.7	87.1	483.7	503.1	
50 DEP	79:59:38.0	79:59:37.5	1388.0	0.7	87.1	483.7	503.1	
51 DEP	80:04:38.0	80:04:37.5	1388.0	0.7	87.1	483.7	503.1	
52 DEP	80:09:38.0	80:09:37.5	1388.0	0.7	87.1	483.7	503.1	
53 DEP	80:14:38.0	80:14:37.5	1388.0	0.7	87.1	483.7	503.1	
54 DEP	80:19:38.0	80:19:37.5	1388.0	0.7	87.1	483.7	503.1	
55 DEP	80:24:38.0	80:24:37.5	1388.0	0.7	87.1	483.7	503.1	
56 DEP	80:29:38.0	80:29:37.5	1388.0	0.7	87.1	483.7	503.1	
57 DEP	80:34:38.0	80:34:37.5	1388.0	0.7	87.1	483.7	503.1	
58 DEP	80:39:38.0	80:39:37.5	1388.0	0.7	87.1	483.7	503.1	
59 DEP	80:44:38.0	80:44:37.5	1388.0	0.7	87.1	483.7	503.1	
60 DEP	80:49:38.0	80:49:37.5	1388.0	0.7	87.1	483.7	503.1	
61 DEP	80:54:38.0	80:54:37.5	1388.0	0.7	87.1	483.7	503.1	
62 DEP	80:59:38.0	80:59:37.5	1388.0	0.7	87.1	483.7	503.1	
63 DEP	81:04:38.0	81:04:37.5	1388.0	0.7	87.1	483.7	503.1	
64 DEP	81:09:38.0	81:09:37.5	1388.0	0.7	87.1	483.7	503.1	
65 DEP	81:14:38.0	81:14:37.5	1388.0	0.7	87.1	483.7	503.1	
66 DEP	81:19:38.0	81:19:37.5	1388.0	0.7	87.1	483.7	503.1	
67 DEP	81:24:38.0	81:24:37.5	1388.0	0.7	87.1	483.7	503.1	
68 DEP	81:29:38.0	81:29:37.5	1388.0	0.7	87.1	483.7	503.1	
69 DEP	81:34:38.0	81:34:37.5	1388.0	0.7	87.1	483.7	503.1	
70 DEP	81:39:38.0	81:39:37.5	1388.0	0.7	87.1	483.7	503.1	
71 DEP	81:44:38.0	81:44:37.5	1388.0	0.7	87.1	483.7	503.1	
72 DEP	81:49:38.0	81:49:37.5	1388.0	0.7	87.1	483.7	503.1	
73 DEP	81:54:38.0	81:54:37.5	1388.0	0.7	87.1	483.7	503.1	
74 DEP	81:59:38.0	81:59:37.5	1388.0	0.7	87.1	483.7	503.1	
75 DEP	82:04:38.0	82:04:37.5	1388.0	0.7	87.1	483.7	503.1	
76 DEP	82:09:38.0	82:09:37.5	1388.0	0.7	87.1	483.7	503.1	
77 DEP	82:14:38.0	82:14:37.5	1388.0	0.7	87.1	483.7	503.1	
78 DEP	82:19:38.0	82:19:37.5	1388.0	0.7	87.1	483.7	503.1	
79 DEP	82:24:38.0	82:24:37.5	1388.0	0.7	87.1	483.7	503.1	
80 DEP	82:29:38.0	82:29:37.5	1388.0	0.7	87.1	483.7	503.1	
81 DEP	82:34:38.0	82:34:37.5	1388.0	0.7	87.1	483.7	503.1	
82 DEP	82:39:38.0	82:39:37.5	1388.0	0.7	87.1	483.7	503.1	
83 DEP	82:44:38.0	82:44:37.5	1388.0	0.7	87.1	483.7	503.1	
84 DEP	82:49:38.0	82:49:37.5	1388.0	0.7	87.1	483.7	503.1	
85 DEP	82:54:38.0	82:54:37.5	1388.0	0.7	87.1	483.7	503.1	
86 DEP	82:59:38.0	82:59:37.5	1388.0	0.7	87.1	483.7	503.1	
87 DEP	83:04:38.0	83:04:37.5	1388.0	0.7	87.1	483.7	503.1	
88 DEP	83:09:38.0	83:09:37.5	1388.0	0.7	87.1	483.7	503.1	
89 DEP	83:14:38.0	83:14:37.5	1388.0	0.7	87.1	483.7	503.1	
90 DEP	83:19:38.0	83:19:37.5	1388.0	0.7	87.1	483.7	503.1	
91 DEP	83:24:38.0	83:24:37.5	1388.0	0.7	87.1	483.7	503.1	
92 DEP	83:29:38.0	83:29:37.5	1388.0	0.7	87.1	483.7	503.1	
93 DEP	83:34:38.0	83:34:37.5	1388.0	0.7	87.1	483.7	503.1	
94 DEP	83:39:38.0	83:39:37.5	1388.0	0.7	87.1	483.7	503.1	
95 DEP	83:44:38.0	83:44:37.5	1388.0	0.7	87.1	483.7	503.1	
96 DEP	83:49:38.0	83:49:37.5	1388.0	0.7	87.1	483.7	503.1	
97 DEP	83:54:38.0	83:54:37.5	1388.0	0.7	87.1	483.7	503.1	
98 DEP	83:59:38.0	83:59:37.5	1388.0	0.7	87.1	483.7	503.1	
99 DEP	84:04:38.0	84:04:37.5	1388.0	0.7	87.1	483.7	503.1	
100 DEP	84:09:38.0	84:09:37.5	1388.0	0.7	87.1	483.7	503.1	

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-8

TEST DATE: JUNE 28, 1980
 UH60A
 MIC # 4 SIDELINE NORTH, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAN/AEE 120
 MAR 12, 1981

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEP	7:26:32.5	7:26:31.0	1107.3	10.1	68.2	688.5	700.8	78.0
22 ARR	7:34:40.0	7:34:39.3	-1444.0	-5.4	89.0	604.8	821.6	128.0
23 DEP	7:38:29.0	7:38:28.4	1463.3	11.8	89.8	626.7	838.5	79.0
24 ARR	7:48:3.0	7:48:2.3	-1038.0	-0.0	87.5	608.0	779.1	128.1
25 DEP	7:45:31.5	7:45:31.0	1507.5	11.2	71.4	614.0	617.2	84.2
26 ARR	7:50:55.5	7:50:54.0	-1010.0	-0.5	87.5	607.4	718.2	122.0
27 DEP	7:54:33.5	7:54:31.1	1010.2	12.6	71.3	617.7	625.1	79.6
28 ARR	8:00:55.5	8:00:53.8	-1000.5	-0.7	90.3	625.1	825.3	124.6
29 DEP	8:14:00.0	8:14:00.0	1407.0	10.7	73.5	621.3	821.5	88.6
30 ARR	8:17:25.5	8:17:25.0	-741.7	-5.5	75.6	620.6	600.0	87.0
31 DEP	8:18:18.0	8:18:18.4	1662.2	13.4	68.0	633.3	838.6	82.6
32 ARR	8:23:33.5	8:23:33.0	-1647.5	-5.4	67.7	600.0	828.8	107.3
33 DEP	8:28:00.0	8:28:00.0	1438.6	11.7	68.3	600.5	827.2	88.4
34 ARR	8:30:00.0	8:30:00.0	-1053.7	-6.4	74.7	618.2	1500.0	155.8
35 DEP	8:34:00.0	8:34:00.0	1468.8	12.2	69.1	702.1	703.3	93.3
36 ARR	8:39:00.0	8:39:00.0	-1408.8	-3.7	71.1	614.2	694.3	117.8
37 DEP	8:40:00.0	8:40:00.0	1733.7	16.3	65.7	643.6	945.6	137.1
38 ARR	8:52:00.0	8:52:00.0	-1155.2	-0.8	66.2	630.3	689.7	82.1
39 DEP	8:57:00.0	8:57:00.0	1186.7	17.8	78.0	638.8	643.7	79.4
40 ARR	9:00:00.0	9:00:00.0	-1153.8	-0.5	68.3	742.1	754.1	100.3
41 DEP	9:00:00.0	9:00:00.0	1153.3	15.5	77.8	647.7	712.3	114.8
42 ARR	9:00:00.0	9:00:00.0	-1063.3	-0.2	140.5	718.0	718.8	98.8
43 DEP	9:00:00.0	9:00:00.0	1153.3	10.0	160.7	707.0	708.0	90.7
44 ARR	9:00:00.0	9:00:00.0	-1123.3	-0.6	148.5	705.1	705.5	88.1
45 DEP	9:00:00.0	9:00:00.0	1153.3	10.0	152.1	686.0	747.2	118.0
46 ARR	9:00:00.0	9:00:00.0	-1153.3	-0.6	147.0	656.2	656.6	91.7

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	C/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEPT	7:26:31.5	7:26:31.0	1284.0	10.0	68.0	603.2	806.7	83.0
22 ARRT	7:34:41.0	7:34:40.0	-832.2	-15.0	68.6	687.8	705.1	120.1
23 DEPT	7:38:27.0	7:38:26.5	1495.3	11.0	69.1	604.4	813.0	90.0
24 ARRT	7:42:27.0	7:42:24.4	-891.0	-15.7	68.1	684.6	872.3	98.0
25 DEPT	7:45:30.0	7:45:29.0	1457.8	11.4	71.1	631.2	631.9	92.0
26 ARRT	7:50:55.0	7:50:55.0	-1080.0	-10.6	67.6	692.0	880.0	111.5
27 DEPT	7:54:1.0	7:54:1.0	1007.5	10.0	71.0	612.1	622.3	84.1
28 ARRT	7:54:34.0	7:54:34.0	-862.2	-15.4	69.0	648.7	857.6	90.4
29 DEPT	8:1:50.0	8:1:40.4	1411.7	10.0	73.3	642.0	651.4	90.7
30 ARRT	8:7:24.0	8:7:23.4	-742.0	-15.5	70.7	654.6	681.3	108.0
31 DEPT	8:10:10.0	8:10:10.4	1662.2	15.4	68.0	673.2	682.4	80.0
32 ARRT	8:23:5.0	8:23:4.4	-823.7	-10.0	67.4	670.1	681.3	70.4
33 DEPT	8:26:3.0	8:26:3.0	1481.5	11.5	69.3	654.2	664.2	80.1
34 ARRT	8:30:37.0	8:30:36.0	-1407.0	-13.0	73.0	663.6	779.0	181.7
35 DEPT	8:34:19.0	8:34:18.3	8228.7	10.0	67.6	722.0	732.0	90.0
36 ARRT	8:39:55.0	8:39:54.4	-725.7	-15.0	70.0	662.4	709.0	60.0
37 DEPT	8:42:23.0	8:42:22.4	816.0	17.0	65.0	629.1	641.7	75.1
38 ARRT	8:47:7.0	8:47:0.4	-808.3	-16.0	70.7	641.1	655.2	102.0
39 DEPT	8:50:40.0	8:50:40.0	8073.7	16.0	70.1	730.0	1015.2	48.0
40 ARRT	8:57:5.0	8:57:5.0	-813.8	-13.0	76.3	624.7	637.7	101.0
41 DEPT	9:0:27.0	9:0:26.0	1000.0	10.0	140.5	730.1	843.3	112.0
42 ARRT	9:0:47.0	9:0:47.0	-900.0	-10.0	151.0	695.1	714.3	103.0
43 DEPT	9:11:43.0	9:11:42.4	333.3	1.2	148.2	783.0	875.7	118.0
44 ARRT	9:13:55.0	9:13:54.4	-77.0	-10.0	152.1	690.7	784.6	112.0
45 DEPT	9:16:18.0	9:16:17.8	15.0	0.0	143.5	704.4	858.3	121.0
46 ARRT	9:18:36.0	9:18:35.7	40.7	0.0				

REC. TIME: TIME PNLTN WAS RECORDED. RAD. TIME: TIME PNLTN WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTN WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 07-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
UH60A

FAA/AEE 120
MAR 12, 1981

MIC #50 SIDELINE SOUTH, GROUND

EVENT	RECORDED TIME	RADIATED TIME	R/C FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEP	7:26:31.5	7:26:31.0	1224.0	10.0	68.0	605.7	600.3	83.8
22 ARR	7:34:43.5	7:34:43.0	-1045.8	-10.1	87.0	600.0	600.3	91.6
23 DEP	7:38:27.5	7:38:27.0	1440.3	11.7	80.0	600.8	600.0	93.6
24 ARR	7:42:11.5	7:42:11.0	-1801.0	-15.7	82.1	607.0	675.3	99.0
25 DEP	7:45:55.5	7:45:55.0	1457.8	11.4	71.1	633.6	634.2	98.5
26 ARR	7:50:39.5	7:50:39.0	-1057.8	-10.8	87.7	605.8	658.4	105.2
27 DEP	7:54:23.5	7:54:23.0	1607.5	12.0	71.3	621.4	624.2	84.1
28 ARR	8:01:07.5	8:01:07.0	-1411.7	-10.0	73.3	645.3	653.0	80.7
29 DEP	8:04:51.5	8:04:51.0	1738.0	13.4	70.0	657.1	658.6	90.7
30 ARR	8:08:35.5	8:08:35.0	-1044.0	-13.3	80.0	675.8	690.5	75.0
31 DEP	8:12:19.5	8:12:19.0	1786.0	10.0	67.0	672.5	674.7	94.7
32 ARR	8:16:03.5	8:16:03.0	-1484.5	-11.5	60.0	650.8	650.7	89.3
33 DEP	8:19:47.5	8:19:47.0	14007.0	13.8	73.0	666.0	722.2	121.6
34 ARR	8:23:31.5	8:23:31.0	-10086.7	-10.5	67.0	730.7	741.3	99.7
35 DEP	8:27:15.5	8:27:15.0	16086.5	14.0	60.0	660.8	672.3	58.7
36 ARR	8:30:59.5	8:30:59.0	-1777.5	-17.0	60.1	600.0	600.0	91.0
37 DEP	8:34:43.5	8:34:43.0	17007.0	17.0	66.8	600.0	700.4	70.7
38 ARR	8:38:27.5	8:38:27.0	-10001.0	-10.4	70.4	640.8	647.5	96.3
39 DEP	8:42:11.5	8:42:11.0	10004.0	10.9	60.0	700.8	744.1	80.7
40 ARR	8:45:55.5	8:45:55.0	-10004.0	-10.9	60.0	700.8	744.1	100.7
41 DEP	8:49:39.5	8:49:39.0	10004.0	10.9	60.0	700.8	744.1	100.7
42 ARR	8:53:23.5	8:53:23.0	-10004.0	-10.9	60.0	700.8	744.1	100.7
43 DEP	8:57:07.5	8:57:07.0	10004.0	10.9	60.0	700.8	744.1	100.7
44 ARR	9:00:51.5	9:00:51.0	-10004.0	-10.9	60.0	700.8	744.1	100.7
45 DEP	9:04:35.5	9:04:35.0	10004.0	10.9	60.0	700.8	744.1	100.7
46 ARR	9:08:19.5	9:08:19.0	-10004.0	-10.9	60.0	700.8	744.1	100.7
47 DEP	9:12:03.5	9:12:03.0	10004.0	10.9	60.0	700.8	744.1	100.7

REC. TIME: TIME FNLTN WAS RECORDED, RAD. TIME: TIME FNLTN WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME FNLTN WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE 07-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120
MAR 12, 1981

UH80A

MIC # 6 SIDELINE NORTH, 4 FT

EVENT	RECORDED TIME	RADIATED TIME	R/O FPM	O/D-ANG DEG	GS KNOTS	CPA FT	SR FT	AR-ANG DEG
21 DEP	7:28:25.5	7:28:24.4	1351.5	11.6	64.9	1038.2	1227.6	122.4
22 ARR	7:34:37.5	7:34:36.3	-1097.3	-8.3	59.1	970.7	1405.4	135.4
23 DEP	7:38:24.5	7:38:23.5	1371.3	11.1	68.8	1014.7	1182.3	115.3
24 ARR	7:42:06.5	7:41:59.3	-1032.0	-6.0	57.9	978.0	1345.4	133.3
25 DEP	7:45:20.0	7:45:25.5	1503.7	11.9	70.5	995.8	1172.1	121.8
26 ARR	7:50:55.0	7:50:55.1	-1021.1	-6.8	57.5	980.8	1045.7	108.0
27 DEP	7:53:52.5	7:53:57.5	1511.5	11.3	71.5	1002.8	1074.2	113.8
28 ARR	7:58:35.0	7:58:34.1	-892.7	-5.8	50.1	1000.8	1086.5	102.8
29 DEP	8:01:45.0	8:01:44.0	1482.3	11.4	71.9	990.1	1107.2	121.1
30 ARR	8:07:20.0	8:07:18.0	-778.0	-5.7	70.1	976.3	1237.9	127.0
31 DEP	8:10:13.5	8:10:12.4	1809.7	13.3	80.8	1000.8	1103.6	123.0
32 ARR	8:23:02.5	8:23:01.8	-647.5	-5.4	67.7	971.2	986.6	102.4
33 DEP	8:28:04.0	8:28:03.0	1592.3	13.1	67.6	954.2	1122.1	122.7
34 ARR	8:30:38.5	8:30:35.5	-995.0	-3.0	73.2	990.0	1103.4	116.2
35 DEP	8:34:15.5	8:34:14.4	2108.2	17.7	67.8	1042.9	1232.1	121.6
36 ARR	8:39:50.0	8:39:49.1	-462.2	-3.7	71.1	986.7	1050.1	110.0
37 DEP	8:40:02.5	8:40:07.4	1712.0	18.2	65.3	1025.7	1225.2	123.2
38 ARR	8:52:17.5	8:52:16.4	2122.7	17.2	67.2	1042.5	1223.4	121.0
39 DEP	8:57:07.7	8:57:08.0	-1207.0	-6.4	72.4	1010.1	1010.5	97.2
40 ARR	9:00:30.0	9:00:38.0	2442.2	19.2	67.7	1030.0	1122.5	113.3
41 DEP	9:00:01.5	9:00:00.4	-974.7	-6.4	72.5	1022.0	1232.0	123.2
42 ARR	9:09:27.0	9:09:28.0	122.5	-0.5	140.3	1040.2	1108.7	116.5
43 FTL	9:11:43.0	9:11:42.0	332.8	1.2	161.9	1064.7	1092.2	103.6
44 FTL	9:13:54.5	9:13:53.4	-102.5	-0.4	142.1	1030.0	1105.4	119.6
45 FTL	9:16:12.5	9:16:12.6	-122.2	-0.1	122.2	1024.2	1099.2	97.5
47 FTL	9:18:38.0	9:18:37.0	-16.2	-0.1	142.4	1000.3	1000.2	88.2

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/O: AIRCRAFT RATE OF CLIMB OR DESCENT, O/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

APPENDIX D

COCKPIT INSTRUMENT DATA

Appendix D
COCKPIT DATA

During each event of the June 1980 Helicopter Noise Measurement program cockpit photos were taken. The slides were projected onto a screen (considerably enlarged) making it possible to read the instruments with reasonable accuracy. The photos were supposed to be taken when aircraft was directly over the centerline-center microphone site. Although this was not achieved in each case the cockpit photos reflect the helicopter "stabilized" configuration during the test event. One important caution is necessary in interpreting the photographic information; the snapshot freezes instrument readings at one moment of time whereas most readings are constantly changing by a small amount as the pilot "hunts" for the reference condition. Thus fluctuations above or below reference conditions are to be anticipated. The instrument readings are most useful in terms of verifying the region of operation for different parameters.

Each table within this appendix provides the following information:

Slide Run No.	This event number along with the test date provides a cross reference to other data.
Slide Time	The time off the range control synchronized clock consistent with acoustical and tracking time bases.
Slide Event Type	This specifies the event type as identified on the cockpit "event board".
Altimeter	Specifies the barometric altimeter reading, one of the more stable indicators.
IAS	Indicated airspeed a fairly stable indicator.
Rotor Speed	Main Rotor speed in RPM or percent, a very stable indicator.
Torque	The torque on the main rotor shaft, a fairly stable value.
Verticle Speed	The rate of ascent or descent, a rather sensitive and variable indicator.
Heading	The compass magnetic heading which fluctuates around the target heading.

Appendix D

The tables in Appendix D are organized by helicopter type.

<u>Table</u>	<u>Helicopter</u>	<u>Test Date</u>	<u>Events</u>
D1-1	UH-60A	6-22	1-11
D1-2		6-22	12-26
D1-3		6-22	27-42
D1-4		6-22	43-52
D1-5		6-25	56-69
D1-6		6-25	70-77
D1-7		6-26	21-34
D1-8		6-26	35-49
D1-9		6-26	49-50
D2-1	S-76	6-23	1-15
D2-2		6-23	16-29
D2-3		6-23	30-43
D2-4		6-23	44-56
D2-5		6-23	58-70
D2-6		6-25	1-14
D2-7		6-25	15-28
D2-8		6-25	29-42
D2-9		6-25	43-55
D3-1	A-109	6-24	1-14
D3-2		6-24	15-28
D3-3		6-24	29-42
D3-4		6-24	43-56
D3-5		6-24	57-64
D4-1	B-206-L	6-26	1-14
D4-2		6-26	15-20

TABLE D1-1

HELICOPTER COCKPIT DATA
UH-60A - 1 of 9

Helicopter: UH-60A

Test Date: 6/22/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
A-T1	T0 A-T1	5:35:06	60'	75	100%	98%	500	265
A-T2	A-T2	5:39:00	450'	75	100%	13%	-800	260
A-1	LF0 1000"	5:47:15	1030'	155	100%	88%	0	80
A-12	LF0	5:53:44	1000'	153	100%	96%	-100	260
A-2	LF0	5:51:08	1000'	153	100%	94%	0	80
A-3	LF0	5:54:54	990'	155	100%	83%	-500	270
A-4	LF0	6:02:09	995'	150	100%	87.5%	-100	85
A-5	LF0	6:06:33	995'	155	100%	92%	0	265
A-6	LF0	6:08:34	1000'	153	100%	90%	-100	85
B-7	T0	6:14:53	360'	75	100%	97%	1900	265
B-8	T0	6:18:57	300'	85	100%	105%	1900	265
B-9	T0	6:22:56	300'	75	100%	100%	1400	265
B-10	T0	6:27:54	380'	74	100%	100%	2000	265
B-11	T0	6:32:53	300'	71	100%	101%	2000	265

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D1-2

HELICOPTER COCKPIT DATA
UH-60A - 2 of 9

Helicopter: UH-60A

Test Date: 6/22/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
B-12	T0	6:35:51	550'	70	100%	99%	2010	265
B-13	T0	6:40:23	xxx	60	100%	91%	100	265
B-14	T0	6:44:13	180'	78	100%	98%	1500	260
B-15	T0	6:48:49	100'	82	100%	103%	1000	65
B-16	APP	6:53:56	420'	72	100%	20%	-800	270
B-17	APP	6:58:04	390'	70	100%	22%	-900	270
B-18	APP	7:03:11	350'	68	100%	20%	-800	270
B-19	APP	7:08:13	390'	69	100%	17%	-800	265
B-20	APP	7:13:00	310'	70	100%	19%	-1900	270
B-21	APP	7:17:10	340'	70	100%	20%	-1800	270
B-22	APP	7:23:30	300'	70	100%	17%	-1900	270
B-23	APP	8:10:00	250'	70	100%	22%	-800	265
C-25	LF0 .9 Vy	8:18:52	550'	152	100%	93.5%	0	80
C-26	LF0 .8 Vy	8:22:37	550'	132	100%	68%	100	265

Legend: LF0 - Level Flyover;

T0 - Takeoff; APP - Approach;

Kt - Knots;

fpm - feet per minute;

IAS - Indicated Airspeed

xxx : photo obscured

TABLE D1-3
HELICOPTER COCKPIT DATA
UH-60A - 3 of 9

Helicopter: UH-60A

Test Date: 6/22/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
C-27	LF0 .7 Vy	8:25:43	500'	120	100%	52.5%	0	80
C-28	LF0 .9 Vy	8:27:15	550'	150	100%	89%	200	265
C-29	LF0 .8 Vy	8:29:00	520'	132	100%	71%	0	80
C-30	LF0 .7 Vy	8:32:45	520'	115	100%	58%	0	265
C-31	LF0 .9 Vy	8:35:19	520'	148	100%	77%	-100	85
C-32	LF0 .8 Vy	8:38:08	520'	130	100%	69.5%	0	265
C-33	LF0 .7 Vy	8:42:38	500'	115	100%	60%	0	85
C-34	LF0 .9 Vy	8:46:23	540'	150	100%	83%	0	265
C-37	LF0 1500"	9:01:13	1500'	150	100%	92%	0	85
D-38	LF0 1500"	9:06:55	1520'	150	100%	88%	0	265
D-39	LF0 1000"	9:08:29	1040'	150	100%	82%	0	85
D-40	LF0 1000"	9:12:45	1000'	150	100%	86%	0	265
D-41	LF0 700"	9:15:08	700'	150	100%	90%	100	85
D-42	LF0 700"	9:20:34	720'	152	100%	88%	0	265

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D1-4
HELICOPTER COCKPIT DATA
UH-60A - 4 of 9

Helicopter: UH-60A

Test Date: 6/22/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
D-43	LF0 300'	9:23:59	350'	150	100%	81%	-250	85
D-44	LF0 300'	9:27:43	310'	152	100%	92%	-100	265
D-45	LF0 1500'	9:31:13	1500'	152	100%	89%	-100	85
D-46	LF0 1500'	9:35:39	1420'	152	100%	93%	400	265
D-47	LF0 1000'	9:43:46	1020'	150	100%	89%	100	85
D-48	LF0 1000'	9:48:33	990'	150	100%	91%	100	265
CC-49	VH 500'	9:51:30	490'	160	100%	100%	0	85
CC-50	VH 500'	9:54:23	450'	160	100%	101%	250	265
CC-51	VH 500'	9:57:31	500'	160	100%	99%	100	340
CC-52	.6 Vy 500'	9:59:30	490'	100	100%	49%	100	265

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D1-5

HELICOPTER COCKPIT DATA
UH-60A - 5 of 9

Helicopter: UH-60A

Test Date: 6/25/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
D-56	LF0 300'	8:21:13	360'	150	100%	101%	300	85
D-57	LF0 300'	8:24:16	300'	150	XXX	XXX	XXX	XXX
D-58	LF0 300'	8:26:15	380'	154	100%	92%	0	83
D-59	LF0 300'	8:29:47	380'	154	100%	91%	50	265
D-60	LF0 700'	8:31:23	730'	152	100%	90%	200	83
D-61	LF0 700'	8:35:35	750'	152	100%	88%	0	260
D-62	LF0 700'	8:38:35	740'	154	100%	97%	200	84
D-63	LF0 700'	8:42:33	740'	154	100%	88%	100	260
D-64	LF0 1000'	8:46:00	1000'	150	100%	88%	0	81
D-65	LF0 1000'	8:47:19	1000'	154	100%	83%	0	260
D-66	LF0 1000'	8:53:13	1000'	152	100%	90%	0	81
D-67	LF0 1000'	8:55:24	1000'	152	100%	89%	50	260
D-68	LF0 1500'	8:58:15	1500'	154	100%	92%	-50	84
D-69	LF0 1500'	9:02:10	1500'	150	100%	91%	0	260

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D1-6
HELICOPTER COCKPIT DATA
UH-60A - 6 of 9

Helicopter: UH-60A		Test Date: 6/25/80						
Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
D-70	LF0 1500'	9:05:05	1500"	154	100%	95%	50	81
D-71	LF0 1500'	9:09:51	1500"	154	100%	95%	0	260
D-72	LF0 2000'	9:13:20	1980"	155	100%	96%	0	85
D-73	LF0 2000'	9:17:41	2000"	150	100%	91%	0	260
D-74	LF0 2000'	9:22:39	2000"	150	100%	87%	0	83
D-75	LF0 2000'	9:25:16	2000"	152	100%	92%	0	265
D-76	LF0 2500'	9:29:19	2500"	152	100%	97%	0	85
D-77	LF0 2500'	9:32:00	2500"	155	100%	96%	100	265

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE DL-7

HELICOPTER COCKPIT DATA UH-60A - 7 of 9

Helicopter: UH-60A

Test Date: 6/26/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
B-21	T0 H+10	7:27:23	350'	55	100%	78%	1000	86
B-22	APP Vy + 10	7:35:53	450'	75	100%	18%	-900	265
B-23	T0 H + 10	7:39:34	525'	63	100%	82%	1400	84
B-24	APP Vy + 10	7:41:08	510'	75	100%	25%	-900	260
B-25	T0 H + 10	7:46:45	710'	74	100%	84%	1500	86
B-26	APP Vy + 10	7:51:07	300'	79	100%	30%	-800	265
B-27	T0 H + 10	7:54:08	410'	70	100%	87%	1500	85
B-28	APP Vy + 10	7:59:54	180'	75	100%	19%	-900	270
B-29	T0 H + 10	8:02:00	580'	78	100%	83%	1500	85
B-30	APP Vy-10	8:13:34	310'	60	100%	26%	-800	260
B-31	T0 H + 10	8:19:22	590'	75	100%	86%	1500	86
B-32	APP Vy - 10	8:24:19	160'	50	100%	35%	-700	280
B-33	T0 H + 10	8:26:14	440'	70	100%	85%	1500	84
B-34	APP Vy - 10	8:31:27	410'	60	100%	31%	-500	260

Legend: LFO - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

Table DL-8

HELICOPTER COCKPIT DATA UH-60A - 8 of 9

Test Date: 6/26/80

Helicopter: UH-60A

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
B-35	TO MAX	8:35:08	670'	85	100%	99%	2010	85
B-36	APP Vy - 10	8:40:57	380'	56	100%	25%	-500	270
B-37	TO MAX	8:44:47	650'	85	100%	98%	2100	85
B-38	APP Vy	8:49:33	210'	48	100%	34%	-500	260
B-39	TO MAX	8:53:31	640'	81	100%	95%	1900	89
B-40	APP Vy	8:58:18	310'	65	100%	23%	-800	265
B-41	TO MAX	9:01:49	610'	85	100%	98%	2010	83
B-42	APP Vy	9:07:02	200'	65	100%	19.5%	-900	265
D-43	LF0	152 Kt 9:10:23	560'	145	100%	98%	0	86
D-44	LF0	152 Kt 9:13:47	510'	150	100%	89%	100	85
D-45	LF0	152 Kt 9:15:54	550'	150	100%	106%	100	85
D-46	LF0	152 Kt 9:17:25	490'	150	100%	97%	0	260
D-47	LF0	152 Kt 9:19:35	500'	153	100%	93%	0	85
H-49	LF0 1000'	9:27:23	940'	21	100%	75%	-400	118

Legend: LF0 - Level Flyover; TO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE DI-9

HELICOPTER COCKPIT DATA
UH-60A - 9 of 9

Helicopter: UH-60A

Test Date: 6/26/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical	
							Speed (fpm)	Heading (Degrees)
H-49	LF0 1000"	9:28:26	1000'	20	100%	77%	0	112
H-49	LF0 1000"	9:29:39	1000'	20	100%	77%	0	100
H-50	LF0 1500"	9:32:10	1500'	XXX	100%	58%	-400	174
H-50	LF0 1500"	9:33:00	1500'	XXX	100%	58%	-400	174
H-50	LF0 1500"	9:33:27	1390'	XXX	100%	69%	-200	165
H-50	LF0 1500"	9:33:44	1360'	XXX	100%	71%	-100	160

Legend: LF0 - Level Flyover; TD - Takeoff; APP - Approach; Kt - Knots;
 fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-1

HELICOPTER COCKPIT DATA S-76 - 1 of 9

Helicopter: S-76		Test Date: 6/23/80						
Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
A1	LF0 1000'	5:16:02	950'	142	108%	78%	-50	262
A2	LF0 1000'	5:18:17	970'	146	100%	80%	250	270
A3	LF0 1000'	5:21:36	980'	138	100%	76%	50	264
A4	LF0 1000'	5:24:50	950'	138	100%	76%	200	272
B5	LF0 1500'	5:28:08	1540'	140	100%	78%	180	262
B6	LF0 1500'	5:31:26	1510'	140	100%	73%	-100	72
B7	LF0 700'	5:34:16	748'	140	100%	78%	150	262
B8	LF0 700'	5:35:15	750'	140	100%	76%	100	76
B9	LF0 300'	5:38:49	300'	138	100%	80%	100	260
B10	LF0 300'	5:40:26	300'	138	100%	58%	-150	270
B11	LF0 1500'	5:44:42	1450'	142	100%	69%	-200	264
B12	LF0 1500'	5:46:51	1410'	140	100%	76%	0	80
B13	LF0 700'	5:48:03	710'	140	100%	71%	-50	264
B14	LF0 700'	5:50:24	690'	143	100%	64%	-250	76
B15	LF0 300'	5:53:21	300'	140	100%	84%	50	264

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-2
HELICOPTER COCKPIT DATA
S-76 - 2 of 9

Helicopter: S-76

Test Date: 6/23/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
D16	LF0 300'	5:56:24	300'	140	160%	69%	-150	80
C17	LF0 500'	5:59:16	500'	140	100%	77%	50	266
C18	LF0 500'	6:03:08	510'	142	100%	66%	-150	76
C19	LF0 500'	6:07:32	510'	140	100%	71%	50	266
C-20	LF0 500' 1-10 Kt	6:08:28	510'	142	108%	68%	-150	72
C-21	LF0 500'	6:12:04	520'	93	100%	40%	100	266
C-22	LF0 500'	6:14:54	530'	95	100%	34%	-150	70
C-23	LF0 500'	6:16:56	480'	93	100%	40%	0	270
C-24	LF0 500'	6:18:00	520'	100	100%	30%	-150	72
C-25	LF0 500'	6:27:32	510'	150	100%	88%	100	266
C-26	LF0 500'	6:29:00	540'	155	100%	96%	100	76
C-27	LF0 500'	6:32:49	470'	155	100%	94%	100	266
C-28	LF0 500'	6:34:54	510'	155	100%	96%	-100	70
C-29	LF0 500'	6:37:02	460'	109	100%	45%	-100	264

Legend: LF0 - Level Flyover; 10 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-3

HELICOPTER COCKPIT DATA
S-76 - 3 of 9

Helicopter: S-76

Test Date: 6/23/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
C-30	LF0 500'	6:39:44	500'	110	100%	45%	-50	72
C-31	LF0 500'	6:41:43	490'	109	100%	40%	-50	268
C-32	LF0 500'	6:44:35	480'	56	100%	45%	-50	72
B-33	T0	7:22:38	XXX	82	100%	95%	450	72
B-34	APA	7:25:06	XXX	60	100%	22%	-650	260
B-35	T0	7:29:50	480'	70	100%	100%	1700	76
B-36	APP	7:32:52	XXX	70	100%	22%	-600	270
B-37	T0	7:34:46	120'	70	100%	105%	1200	76
B-38	APP	7:36:50	XXX	70	100%	24%	-600	77
B-39	T0	7:39:00	220'	70	100%	105%	1010	72
B-40	APP	7:40:50	XXX	70	100%	20%	-700	270
B-41	T0	7:46:00	220'	70	100%	100%	1010	70
B-42	APP	7:49:29	XXX	70	100%	20%	-700	270
B-43	T0	7:52:41	180'	63	100%	62%	1000	80

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-4

HELICOPTER COCKPIT DATA
S-76 - 4 of 9

Helicopter: S-76

Test Date: 6/23/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
B-44	APP	7:54:12	200'	62	100%	27%	550	270
E-45	LF0 1000'	8:00:09	960'	139	100%	75%	300	79
E-46	LF0 1000'	8:02:00	XXX	142	100%	80%	0	76
E-47	LF0 1000'	8:05:10	920'	140	100%	75%	0	76
E-48	LF0 1000'	8:08:00	XXX	140	100%	70%	-50	260
C-49	LF0 500'	8:10:30	510'	124	100%	55%	0	76
C-50	LF0 500'	8:13:41	460'	124	100%	55%	50	260
C-51	LF0 300'	8:16:55	470'	124	100%	55%	0	76
C-52	LF0 300'	8:19:27	490'	124	100%	53%	200	260
B-53	T0	9:22:09	80'	75	100%	110%	600	-14
B-54	APP	8:26:09	220'	77	100%	24%	-200	260
B-55	T0	8:28:17	180'	70	100%	93%	1010	74
B-56	APP	8:41:26	XXX	77	100%	24%	-600	260
C-51	LF0 500'	8:46:30	520'	142	107%	70%	0	74

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
 fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-5
HELICOPTER COCKPIT DATA
S-76 - 5 of 9

Helicopter: S-76

Test Date: 6/23/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
C-58	LF0 300'	8:47:40	490'	142	107%	60%	-100	260
C-59	LF0 500'	8:50:30	540'	140	107%	65%	-200	76
C-60	LF0 500'	8:53:38	540'	140	107%	65%	100	260
C-61	LF0 500'	8:57:51	500'	93	107%	35%	0	77
C-62	LF0 500'	9:00:13	480'	93	107%	45%	0	260
C-63	LF0 500'	9:07:33	530'	93	107%	45%	150	76
C-64	LF0 500'	9:10:29	490'	93	107%	45%	50	260
C-65	LF0 500'	9:14:42	500'	155	107%	75%	-200	80
C-66	LF0 500'	9:16:25	490'	155	107%	80%	0	260
C-67	LF0 500'	9:18:32	500'	155	107%	80%	-300	77
C-68	LF0	9:21:16	XXX	155	XXX	XXX	0	260
B-69	APP	9:26:42	XXX	XXX	107%	15%	-650	260
B-70	APP	9:31:55	250'	XXX	107%	25%	-650	260

Legend: LF0 - Level Flyover; IO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-6

HELICOPTER COCKPIT DATA S-76 - 6 of 9

Helicopter: S-76

Test Date: 6/25/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
A-1	LF0	140 Kt 5:02:42	1020'	140	107%	70%	50	81
A-2	LF0	140 Kt 5:06:22	990'	140	107%	70%	0	260
A-3	LF0	140 Kt 5:08:23	1000'	138	107%	70%	150	76
A-4	LF0	140 Kt 5:10:16	1000'	142	107%	70%	0	260
D-5	LF0 1500'	5:13:55	1580'	142	107%	70%	0	84
D-6	LF0 1500'	5:16:44	1520'	140	107%	65%	0	260
D-7	LF0 1500'	5:18:58	1580'	140	107%	75%	-100	78
D-8	LF0 700'	5:21:02	700'	143	107%	70%	-50	260
D-9	LF0 700'	5:24:11	740'	140	107%	70%	200	80
D-10	LF0 300'	5:26:42	340'	140	107%	70%	-100	260
D-11	LF0 300'	5:28:31	390'	138	107%	70%	50	80
D-12	LF0 1500'	5:31:28	1440'	145	107%	70%	-100	260
D-13	LF0 1500'	5:33:17	1540'	140	107%	75%	-50	79
D-14	LF0 700'	5:36:02	720'	140	107%	65%	-50	260

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-7

HELICOPTER COCKPIT DATA
S-76 - 7 of 9

Helicopter: S-76

Test Date: 6/25/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
D-15	LF0 700'	5:38:03	720'	138	107%	70%	100	80
D-16	LF0 300'	5:40:30	300'	140	107%	66%	0	260
D-17	LF0 300'	5:42:19	320'	136	107%	70%	150	84
C-18	LF0 500' 109 Kt	5:46:39	500'	110	107%	45%	50	260
C-19	LF0 500' 109 Kt	5:48:32	500'	109	107%	48%	100	85
C-20	LF0 500' 109 Kt	5:50:37	440'	112	107%	45%	0	260
C-21	LF0 500' 109 Kt	5:53:43	480'	109	107%	45%	0	82
C-22	LF0 500' 109 Kt	5:56:30	476'	12	107	45%	-50	260
C-23	LF0 300' 109 Kt	5:59:15	520'	109	107%	40%	-50	85
C-24	LF0 500' 124 Kt	6:05:52	510'	125	107%	50%	-100	260
C-25	LF0 500' 124 Kt	6:07:03	520'	125	107%	55%	100	72
C-26	LF0 500' 124 Kt	6:10:08	480'	124	107%	50%	-200	260
C-27	LF0 500' 124 Kt	6:13:28	480'	124	107%	55%	50	82
C-28	LF0 500' 124 Kt	6:16:41	480'	125	107%	45%	-100	76

Legend: LF0 - Level Flyover; 10 - Takeoff; APP - Approach; Kt - Knots;
 fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-8

HELICOPTER COCKPIT DATA
S-76 - 8 of 9

Helicopter: S-76

Test Date: 6/25/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
C-29	LF0 500'	6:18:06	490'	124	107%	50%	100	82
D-30	LF0 2500'	6:23:00	2510'	140	107%	72%	0	262
D-31	LF0 2500'	6:26:58	2480'	144	107%	68%	-100	86
D-32	LF0 2500'	6:29:23	2460'	140	107%	65%	-50	260
D-33	LF0 2500'	6:33:09	2510'	140	107%	70%	50	86
D-34	LF0 2000'	6:39:04	1940'	145	107%	68%	-100	260
D-35	LF0 2000'	6:42:45	1960'	138	107%	78%	150	80
D-36	LF0 2000'	6:45:42	2000'	142	107%	68%	0	260
D-37	LF0 2000'	6:49:10	2010'	142	107%	68%	-100	82
D-38	LF0 1500'	6:53:01	1500'	XXX	XXX	XXX	XXX	XXX
D-39	LF0 2000'	6:56:39	1500'	137	107%	72%	400	80
B-40	APP	7:00:38	240'	70	107%	21%	-600	260
B-41	T0	7:21:55	450'	63	107%	98%	-100	80
B-42	APP	7:26:03	270'	70	107%	31%	-500	76

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
 fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-9
HELICOPTER COCKPIT DATA
S-76 - 9 of 9

Helicopter: S-76

Test Date: 6/15/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
B-43	TO	7:28:15	246'	63	107%	96%	1500	86
B-44	APP	7:32:05	250'	70	107%	31%	-600	260
B-45	TO	7:34:08	240'	70	107%	97%	1500	82
B-46	APP	7:38:33	242'	78	107%	23%	-600	260
B-47	TO	7:41:47	230'	70	107%	100%	1600	82
B-48	APP	7:44:50	240'	70	107%	23%	-600	260
B-49	TO	7:46:20	240'	70	107%	99%	1700	80
B-50	APP	7:50:08	240'	78	107%	25%	-500	260
B-51	TO	7:53:22	241'	70	107%	96%	1700	80
E-52	LF0	140 Kt 7:56:34	1000'	140	107%	71%	100	268
E-53	LF0	140 Kt 7:58:05	960'	142	107%	50%	-50	78
E-54	LF0	140 Kt 7:59:57	1000'	140	107%	66%	-50	270
E-55	LF0	140 Kt 8:02:17	955'	140	107%	69%	-50	78

Legend: LF0 - Level Flyover; TO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-8

HELICOPTER COCKPIT DATA
S-76 - 8 of 9

Helicopter: S-76

Test Date: 6/25/80

Slide Run No.	Slide Event Type	Slide Time	Altimeter (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)	
C-29	LF0 500'	124 Kt	6:18:06	490'	124	107%	50%	100	82
D-30	LF0 2500'	6:23:00	2510'	140	107%	72%	0	262	
D-31	LF0 2500'	6:26:58	2480'	144	107%	68%	-100	86	
D-32	LF0 2500'	6:29:23	2460'	140	107%	65%	-50	260	
D-33	LF0 2500'	6:33:09	2510'	140	107%	70%	50	86	
D-34	LF0 2000'	6:39:04	1940'	145	107%	68%	-100	260	
D-35	LF0 2000'	6:42:45	1960'	138	107%	78%	150	80	
D-36	LF0 2000'	6:46:42	2000'	142	107%	68%	0	260	
D-37	LF0 2000'	6:49:10	2010'	142	107%	68%	-100	82	
D-38	LF0 1500'	6:53:01	1500'	xxx	xxx	xxx	xxx	xxx	
D-39	LF0 2000'	6:56:39	1500'	137	107%	72%	400	80	
B-40	APP	7:00:38	240'	70	107%	21%	-600	260	
B-41	T0	7:21:55	450'	63	107%	98%	-100	80	
B-42	APP	7:26:03	270'	70	107%	31%	-500	76	

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
 fpm - feet per minute; IAS - Indicated Airspeed

xxx : photo obscured

TABLE D3-1
HELICOPTER COCKPIT DATA
A-109 - 1 of 5

Test Date: 6/24/80

Helicopter: A-109

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
A-1	LF0 1000'	6:11:07	1000'	140	100%	100%	0	90
A-2	LF0 1000'	6:12:50	1000'	130	100%	90%	-175	270
A-3	LF0 1000'	6:14:06	1000'	130	100%	88%	-100	85
A-4	LF0 1000'	6:23:41	980'	130	100%	90%	-50	260
A-5	LF0 1500'	6:26:32	1500'	128	100%	90%	-100	85
A-6	LF0 1500'	6:29:09	1500'	132	100%	95%	0	160
A-7	LF0 700'	6:31:52	720'	128	100%	90%	100	85
A-8	LF0 700'	6:34:15	680'	128	100%	90%	50	260
A-9	LF0 360'	6:36:34	300'	127	100%	85%	-50	90
A-10	LF0 360'	6:38:29	300'	130	100%	90%	0	260
A-11	LF0 1300'	6:41:08	1500'	138	100%	87%	0	88
A-12	LF0 1300'	6:44:23	1480'	142	100%	95%	0	270
A-13	LF0 700'	6:47:08	680'	130	100%	94%	0	88
D-14	LF0 700'	6:50:40	680'	126	100%	86%	100	270

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-2

HELICOPTER COCKPIT DATA A-109 - 2 of 5

Test Date: 6/24/80

Helicopter: A-109

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
D-15	LF0 300'	6:52:56	300'	128	100%	80%	-200	90
D-16	LF0 300'	6:54:03	300'	130	100%	90%	50	260
C-17	LF0 500' 130 Kt	6:55:32	510'	130	100%	95%	150	90
C-18	LF0 500' 130 Kt	6:58:48	500'	129	100%	85%	0	270
C-19	LF0 500' 130 Kt	7:02:26	500'	130	100%	90%	0	85
C-20	LF0 500' 130 Kt	7:06:14	500'	130	100%	90%	0	260
C-21	LF0 500' 87 Kt	7:13:37	470'	87	100%	60%	0	85
C-22	LF0 500' 87 Kt	7:16:33	535'	87	100%	60%	0	260
B-23	T0	7:46:58	170'	58	100%	114%	1010	82
B-24	APP	7:49:58	170'	60	100%	40%	-900	260
B-25	T0	7:53:02	150'	60	100%	112%	1000	84
B-26	APP	7:55:36	450'	58	100%	35%	-1000	260
B-27	T0	7:58:17	120'	65	100%	112%	1000	80
B-28	APP	8:01:47	350'	60	100%	35%	-800	260

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-3
HELICOPTER COCKPIT DATA
A-109 - 3 of 5

Helicopter: A-109

Test Date: 6/24/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
B-29	T0	8:03:43	110'	60	100%	110%	1000	85
B-30	APP	8:05:22	400'	60	100%	35%	-700	260
B-31	T0	8:07:32	200'	65	100%	115%	1100	85
B-32	APP	8:10:49	380'	60	100%	40%	-700	260
B-33	T0	8:12:52	180'	58	100%	115%	1050	85
B-34	APP	8:14:11	380'	60	100%	38%	-800	260
B-35	T0	8:17:37	140'	63	100%	60%	0	85
B-36	APP	8:18:00	120'	55	100%	35%	-900	260
B-37	T0	8:22:58	150'	60	100%	115%	1010	84
B-38	APP	8:24:22	330'	60	100%	40%	-800	260
B-39	T0	8:26:32	200'	58	100%	112%	1010	82
B-40	APP	8:28:23	330'	60	100%	37%	-1000	260
B-41	T0	8:30:18	160'	60	100%	11%	1000	85
E-42	LF0 .9 VNE 1000'	8:32:47	1000'	135	100%	85%	-250	270

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-4

HELICOPTER COCKPIT DATA
A-109 - 4 of 5

Helicopter: A-109

Test Date: 6/24/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
E-43	LF0 .9 VME 1000'	8:35:23	980'	130	100%	82%	100	82
E-44	LF0 .9 VME 1000'	8:37:34	970'	125	100%	80%	100	270
E-45	LF0 .9 VME 1000'	8:40:03	1000'	130	100%	90%	0	85
C-46	LF0 500' 87 Kt	8:42:39	460'	87	100%	60%	-75	260
C-47	LF0 500' 87 Kt	8:45:56	500'	90	100%	60%	-150	85
C-48	LF0 500' 145 Kt	8:54:31	420'	142	100%	115%	150	270
C-49	LF0 500' 145 Kt	8:55:48	500'	142	100%	110%	0	89
C-50	LF0 500' 145 Kt	8:58:03	440'	143	100%	110%	-100	270
C-51	LF0 500' 102 Kt	9:00:17	520'	105	100%	70%	0	85
C-52	LF0 500' 102 Kt	9:02:32	460'	105	100%	65%	-100	265
C-53	LF0 500' 102 Kt	9:06:59	500'	105	100%	70%	125	80
C-54	LF0 500' 116 Kt	9:08:16	470'	120	100%	75%	-100	265
C-55	LF0 500' 116 Kt	9:10:28	380'	115	100%	80%	0	80
C-56	LF0 500' 102 Kt	9:12:39	490'	105	100%	65%	-200	270

Legend: LF0 - Level Flyover; TU - Takeoff; APP - Approach; Kt - Knots;
 fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-5

HELICOPTER COCKPIT DATA A-109 - 5 of 5

Helicopter: A-109

Test Date: 6/24/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
C-57	LF0 500'	116 Kt	500'	115	100%	80%	50	82
C-58	LF0 500'	116 Kt	470'	110	100%	70%	-100	265
C-59	LF0 500'	145 Kt	450'	143	100%	115%	150	80
C-60	LF0 500'	145 Kt	470'	145	100%	115%	-180	265
C-61	LF0 500'	145 Kt	440'	140	100%	115%	100	260
C-62	LF0 500'	130 Kt	470'	132	100%	115%	0	265
C-63	LF0 500'	130 Kt	500'	130	100%	100%	300	85
C-64	APP	9:30:56	XXX	60	100%	35%	0	265

Legend: LF0 - Level Flyover;

fpm - feet per minute;

T0 - Takeoff; APP - Approach;

IAS - Indicated Airspeed

Kt - knots;

XXX : photo obscured

TABLE D4-1
HELICOPTER COCKPIT DATA
206L - 1 of 2

Helicopter: 206L

Test Date: 6/26/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
D-1	LF0 300'	5:11:30	340'	115	100%	80%	0	85
D-2	LF0 300'	5:44:69	360'	115	100%	82%	100	260
D-3	LF0 300'	5:47:02	350'	115	100%	86%	0	90
D-4	LF0 300'	5:49:13	360'	115	100%	86%	-150	260
D-5	LF0 700'	XXX	660'	115	100%	XXX	-150	XXX
D-6	LF0 700'	5:55:39	710'	115	100%	88%	0	260
D-7	LF0 700'	5:59:00	700'	115	100%	86%	0	90
D-8	LF0 700'	6:02:45	710'	115	100%	86%	0	260
D-9	LF0 1000'	6:03:14	990'	115	100%	84%	-50	90
D-10	LF0 1000'	6:10:16	960'	115	100%	86%	0	265
D-11	LF0 1000'	6:14:55	980'	115	100%	84%	-200	90
D-12	LF0 1000'	6:18:13	1000'	115	100%	84%	-100	265
D-13	LF0 1500'	6:23:32	1460'	115	100%	84%	-100	90
D-14	LF0 1500'	6:27:50	1490'	115	100%	86%	100	265

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE DA-2

HELICOPTER COCKPIT DATA 206L - 2 of 2

Helicopter: 206L

Test Date: 6/26/80

Slide Run No.	Slide Event Type	Slide Time	Altitude (Feet)	IAS (Kts)	Rotor Speed (RPM or %)	Torque (%)	Vertical Speed (fpm)	Heading (Degrees)
D-15	LFO 1560'	6:33:10	1420'	115	100%	88%	-100	90
D-16	LFO 1560'	6:36:03	1500'	115	100%	86%	-150	265
D-17	LFO 2000'	8:40:27	2010'	115	100%	94%	0	85
D-18	LFO 2000'	6:45:15	2000'	115	100%	84%	0	260
D-19	LFO 2000'	6:50:41	2000'	115	100%	84%	-150	90
D-20	Hover 300'	6:55:32	300'	XXX	100%	84%	0	265
D-20	Hover 300'	6:56:50	300'	XXX	100%	-156	-150	260

Legend: LFO - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

APPENDIX E

METEOROLOGICAL DATA

Appendix E

METEOROLOGICAL DATA

This appendix presents a summary of meteorological data gleaned from National Weather Service radiosonde (rawinsonde) weather balloon ascensions. Tables are identified by launch date and launch time. Within each table the following data is provided:

Time	This is the balloon launch time.
Pressure	Atmospheric pressure in inches of Mercury.
Altitude Above Ground Level	Expressed in meters.
Temperature	Expressed in degrees Celsius.
Relative Humidity	Expressed in percent.

These data have been used to establish values of temperature and relative humidity at 33 feet (10m) above ground level for use in atmospheric absorption corrections. Subsequent analyses can use these data to perform layered atmospheric absorption corrections using temperature and relative humidity values for each 100-foot layer between the microphone and the helicopter. The interpolated 100-foot layer data are presented in tabular format.

In addition to the data tables we have also presented graphic displays of temperature, relative humidity, windspeed, crosswind component and headwind components versus altitude for each balloon ascension. The wind vectors are defined for helicopters flying in the 260° direction, (i.e., east to west). Crosswind vectors are identified as either right crosswind (RX) or left crosswind (LX) while along-track vectors are identified as headwind (H) or tailwind (T). The total wind vector is identified as (W). It is noted that point by point summations of crosswind squared and headwind (or tailwind) squared do not always equal the square of the total wind vector due to loss of significant figures in rounding. Nevertheless the plots provide valuable insight into the influence of winds aloft on both helicopter adherence to reference flight paths and helicopter noise levels.

Index to Temperature-Relative Humidity Profiles

<u>Table No.</u>	<u>Test Date</u>	<u>Data</u>
E1	6-22	T, RH
E2	6-23	T, RH
E3	6-24	T, RH
E4	6-25	T, RH
E5	6-26	T, RH

Temperature-Relative Humidity and Wind Vector Plots

<u>Figure</u>	<u>Test Date</u>	<u>Asc. No.</u>	<u>Asc. Time</u>
E1-1	6-22	2	5:35
E1-2	6-22	3	6:11
E1-3	6-22	4	6:30
E1-4	6-22	5	7:00
E1-5	6-22	6	8:00
E1-6	6-22	7	9:00
E2-1	6-23	8	5:00
E2-2	6-23	9	5:30
E2-3	6-23	10	6:00
E2-4	6-23	11	6:30
E2-5	6-23	12	7:00
E2-6	6-23	13	7:30
E2-7	6-23	14	9:00
E3-1	6-24	15	5:00
E3-2	6-24	16	5:30
E3-3	6-24	17	6:00
E3-4	6-24	18	6:30
E3-5	6-24	19	7:00
E3-6	6-24	20	8:00
E3-7	6-24	21	9:00

<u>Figure</u>	<u>Test Date</u>	<u>Asc. No.</u>	<u>Asc. Time</u>
E4-1	6-25	22	5:00
E4-2	6-25	23	5:30
E4-3	6-25	24	6:00
E4-4	6-25	25	6:30
E4-5	6-25	26	7:00
E4-6	6-25	27	8:00
E4-7	6-25	28	9:00
E5-1	6-26	29	5:00
E5-2	6-26	30	5:30
E5-3	6-26	31	6:00
E5-4	6-26	32	6:30
E5-5	6-26	33	7:00
E5-6	6-26	34	8:00
E5-7	6-26	35	9:00

TABLE NO. E1
AIRCRAFT NOISE PROPAGATION
METEOROLOGICAL DATA
(INTERPOLATED)
(6/22/80)

TIME OF DAY

	5135	6111	6130	7100	8100	9100
A.P.	30.00	30.00	30.02	30.03	30.03	30.04
ALT	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH
101	16.3	88.9	14.6	87.1	15.8	86.5
151	16.8	83.7	15.5	86.1	16.0	85.3
451	18.6	73.9	16.5	80.2	16.9	77.8
751	19.8	68.4	17.5	74.4	17.7	70.4
1051	19.8	68.2	18.8	68.8	18.5	62.9
1351	20.1	51.7	19.3	63.8	19.3	56.2
1651	20.5	47.5	19.6	60.5	19.7	52.7
1951	21.0	44.9	19.6	58.9	19.7	51.6
2251	21.3	43.3	19.6	57.2	19.8	50.6
2551	21.1	43.1	19.6	55.6	19.7	49.5
2851	20.9	43.1	19.6	54.0	19.7	48.4
3151	20.7	43.2	19.6	52.3	19.7	47.4
3451	20.5	43.3	19.6	50.7	19.1	44.3
3751	20.3	43.3	19.6	49.1	19.2	45.2
4051	20.1	43.4	19.6	47.4	19.3	44.2
4351	19.9	43.4	19.6	45.8	19.2	43.8
4651	19.7	43.5	19.6	44.2	19.9	44.1
4951	19.5	43.6	19.6	42.6	19.7	44.5
5251	19.3	43.6	19.5	41.7	19.4	45.0
5551	19.1	43.7	19.3	42.0	19.1	45.4
5851	18.9	43.7	19.0	42.5	18.9	45.9
6151	18.7	43.8	18.7	43.1	18.6	46.3
6451	18.5	43.9	18.5	43.6	18.4	46.7
6751	18.3	43.9	18.2	44.2	18.1	47.2
7051	18.0	44.0	17.9	44.7	17.8	47.6
7351	17.8	44.0	17.7	45.3	17.6	48.1
7651	17.4	44.1	17.4	45.8	17.3	48.5
7951	17.4	44.2	17.1	46.4	17.0	48.9
8251	17.2	44.2	16.8	46.9	16.8	49.4
8551	17.0	44.3	16.6	47.5	16.5	49.8
8851	16.8	44.4	16.3	48.0	16.2	50.3
9151	16.6	44.4	16.0	48.6	16.0	50.7
9451	16.4	44.5	15.8	49.1	15.7	51.2
9751	16.1	44.9	15.5	49.7	15.5	51.6
10051	15.9	45.7	15.2	50.2	15.2	52.0
10351	15.6	46.5	15.0	50.8	15.0	52.5
10651	15.3	47.3	14.7	51.3	14.7	52.9
10951	15.0	48.1	14.4	51.9	14.4	53.4
11251	14.7	48.9	14.2	52.4	14.1	53.8
11551	14.5	49.7	13.9	53.0	13.9	54.2
11851	14.2	50.5	13.6	53.5	13.6	54.7
12151	13.9	51.3	13.3	54.1	13.3	55.1
12451	13.6	52.0	13.1	54.6	13.1	55.6
12751	13.3	52.8	12.8	55.2	12.8	56.0
13051	13.1	53.6	12.5	55.7	12.5	56.5
13351	12.8	54.4	12.3	56.3	12.3	56.9
13651	12.5	55.2	12.0	56.8	12.0	57.3
13951	12.2	56.0	11.7	57.4	11.8	57.8
14251	11.9	56.8	11.5	57.9	11.5	58.2
14551	11.6	57.6	11.2	58.5	11.2	58.6
14851	11.4	58.4	11.0	59.0	11.0	59.1
15151	11.1	59.2	10.7	59.6	10.7	59.5
15451	11.0	59.4	10.4	60.4	10.4	60.2
15751		60.1	10.1	61.0	10.1	60.8
16051		60.8	9.8	61.6	9.8	61.4
16351		61.5	9.5	62.3	9.5	62.1
16651		62.2	9.2	63.0	9.2	62.8
16951		63.0	8.9	63.7	8.9	63.5
17251		63.7	8.6	64.4	8.6	64.2
17551		64.4	8.3	65.1	8.3	64.9
17851		65.1	8.0	65.8	8.0	65.6
18151		65.8	7.7	66.5	7.7	66.3
18451		66.5	7.4	67.2	7.4	67.0
18751		67.2	7.1	67.9	7.1	67.7
19051		67.9	6.8	68.6	6.8	68.4
19351		68.6	6.5	69.3	6.5	69.1
19651		69.3	6.2	70.0	6.2	69.8
19951		70.0	5.9	70.7	5.9	70.5
20251		70.7	5.6	71.4	5.6	71.2
20551		71.4	5.3	72.1	5.3	71.9
20851		72.1	5.0	72.8	5.0	72.6
21151		72.8	4.7	73.5	4.7	73.3
21451		73.5	4.4	74.2	4.4	74.0
21751		74.2	4.1	74.9	4.1	74.7
22051		74.9	3.8	75.6	3.8	75.4
22351		75.6	3.5	76.3	3.5	76.1
22651		76.3	3.2	77.0	3.2	76.8
22951		77.0	2.9	77.7	2.9	77.5
23251		77.7	2.6	78.4	2.6	78.2
23551		78.4	2.3	79.1	2.3	78.9
23851		79.1	2.0	79.8	2.0	79.6
24151		79.8	1.7	80.5	1.7	80.3
24451		80.5	1.4	81.2	1.4	81.0
24751		81.2	1.1	81.9	1.1	81.7
25051		81.9	0.8	82.6	0.8	82.4
25351		82.6	0.5	83.3	0.5	83.1
25651		83.3	0.2	84.0	0.2	83.8
25951		84.0	0.0	84.7	0.0	84.5
26251		84.7	0.0	85.4	0.0	85.2
26551		85.4	0.0	86.1	0.0	85.9
26851		86.1	0.0	86.8	0.0	86.6
27151		86.8	0.0	87.5	0.0	87.3
27451		87.5	0.0	88.2	0.0	88.0
27751		88.2	0.0	88.9	0.0	88.7
28051		88.9	0.0	89.6	0.0	89.4
28351		89.6	0.0	90.3	0.0	90.1
28651		90.3	0.0	91.0	0.0	90.8
28951		91.0	0.0	91.7	0.0	91.5
29251		91.7	0.0	92.4	0.0	92.2
29551		92.4	0.0	93.1	0.0	92.9
29851		93.1	0.0	93.8	0.0	93.6
30151		93.8	0.0	94.5	0.0	94.3
30451		94.5	0.0	95.2	0.0	95.0
30751		95.2	0.0	95.9	0.0	95.7
31051		95.9	0.0	96.6	0.0	96.4
31351		96.6	0.0	97.3	0.0	97.1
31651		97.3	0.0	98.0	0.0	97.8
31951		98.0	0.0	98.7	0.0	98.5
32251		98.7	0.0	99.4	0.0	99.2
32551		99.4	0.0	100.1	0.0	99.9
32851		100.1	0.0	100.8	0.0	100.6
33151		100.8	0.0	101.5	0.0	101.3
33451		101.5	0.0	102.2	0.0	102.0
33751		102.2	0.0	102.9	0.0	102.7
34051		102.9	0.0	103.6	0.0	103.4
34351		103.6	0.0	104.3	0.0	104.1
34651		104.3	0.0	105.0	0.0	104.8
34951		105.0	0.0	105.7	0.0	105.5
35251		105.7	0.0	106.4	0.0	106.2
35551		106.4	0.0	107.1	0.0	106.9
35851		107.1	0.0	107.8	0.0	107.6
36151		107.8	0.0	108.5	0.0	108.3
36451		108.5	0.0	109.2	0.0	109.0
36751		109.2	0.0	109.9	0.0	109.7
37051		109.9	0.0	110.6	0.0	110.4
37351		110.6	0.0	111.3	0.0	111.1
37651		111.3	0.0	112.0	0.0	111.8
37951		112.0	0.0	112.7	0.0	112.5
38251		112.7	0.0	113.4	0.0	113.2
38551		113.4	0.0	114.1	0.0	113.9
38851		114.1	0.0	114.8	0.0	114.6
39151		114.8	0.0	115.5	0.0	115.3
39451		115.5	0.0	116.2	0.0	116.0
39751		116.2	0.0	116.9	0.0	116.7
40051		116.9	0.0	117.6	0.0	117.4
40351		117.6	0.0	118.3	0.0	118.1
40651		118.3	0.0	119.0	0.0	118.8
40951		119.0	0.0	119.7	0.0	119.5
41251		119.7	0.0	120.4	0.0	120.2
41551		120.4	0.0	121.1	0.0	120.9
41851		121.1	0.0	121.8	0.0	121.6
42151		121.8	0.0	122.5	0.0	122.3
42451		122.5	0.0	123.2	0.0	123.0
42751		123.2	0.0	123.9	0.0	123.7
43051		123.9	0.0	124.6	0.0	124.4
43351		124.6	0.0	125.3	0.0	125.1
43651		125.3	0.0	126.0	0.0	125.8
43951		126.0	0.0	126.7	0.0	126.5
44251		126.7	0.0	127.4	0.0	127.2
44551		127.4	0.0	128.1	0.0	127.9
44851		128.1	0.0	128.8	0.0	128.6
45151		128.8	0.0	129.5	0.0	129.3
45451		129.5	0.0	130.2	0.0	130.0
45751		130.2	0.0	130.9	0.0	130.7
46051		130.9	0.0	131.6	0.0	131.4
46351		131.6	0.0	132.3	0.0	132.1
46651		132.3	0.0	133.0	0.0	132.8
46951		133.0	0.0	133.7	0.0	133.5
47251		133.7	0.0	134.4	0.0	134.2
47551		134.4	0.0	135.1	0.0	134.9
47851		135.1	0.0	135.8	0.0	135.6
48151		135.8	0.0	136.5	0.0	136.3
48451		136.5	0.0	137.2	0.0	137.0
48751		137.2	0.0	137.9	0.0	137.7
49051		137.9	0.0	138.6	0.0	138.4
49351		138.6	0.0	139.3	0.0	139.1
49651		139.3	0.0	140.0	0.0	139.8
49951		140.0	0.0	140.7	0.0	140.5
50251		140.7	0.0	141.4	0.0	141.2
50551		141.4	0.0	142.1	0.0	141.9
50851		142.1	0.0	142.8	0.0	142.6
51151		142.8	0.0	143.5	0.0	143.3
51451		143.5	0.0	144.2	0.0	144.0
51751		144.2	0.0	144.9	0.0	144.7
52051		144.9	0.0	145.6	0.0	145.4
52351		145.6	0.0	146.3	0.0	146.1
52651		146.3	0.0	147.0	0.0	146.8
52951		147.0	0.0	147.7	0.0	147.5
53251		147.7	0.0	148.4	0.0	148.2
53551		148.4	0.0	149.1	0.0	148.9
53851		149.1	0.0	149.8	0.0	149.6
54151		149.8	0.0	150.5	0.0	150.3
54451		150.5	0.0	151.2	0.0	151.0
54751		151.2	0.0	151.9	0.0	151.7
55051		151.9	0.0	152.6	0.0	152.4
55351</						

TABLE NO. E2
AIRCRAFT NOISE PROPAGATION

METEOROLOGICAL DATA

(INTERPOLATED)*

(4/23/80)

TIME OF DAY

	5:00	5:30	6:00	6:30	7:00	7:30	9:00							
A.P.	30.06	30.04	30.08	30.08	30.08	30.08	30.10							
ALT	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH							
10	17.4	79.2	16.9	50.6	16.7	54.6	17.0	63.0	18.5	79.2	21.2	71.7	24.9	61.1
15	18.0	72.3	17.1	79.9	16.9	53.5	17.2	61.8	18.6	78.2	21.3	70.7	24.9	60.9
45	19.9	56.5	18.1	75.9	18.1	76.8	18.3	75.1	19.3	72.5	21.7	65.0	24.8	59.4
75	20.9	49.2	19.2	71.9	19.3	70.2	19.4	68.4	19.9	66.7	22.1	59.2	24.7	58.0
105	20.3	48.7	20.2	67.9	20.5	63.6	20.5	61.7	20.6	61.0	22.4	53.5	24.6	56.5
135	19.8	48.2	21.2	63.8	21.7	56.9	21.6	54.9	21.2	55.3	22.8	47.7	24.5	55.0
165	19.2	47.8	22.0	60.0	22.5	52.4	22.3	50.0	21.7	50.7	23.0	43.5	24.4	53.8
195	18.6	47.3	22.3	56.3	22.6	51.0	22.5	47.7	22.0	48.1	23.0	42.3	24.2	53.3
225	18.0	46.8	22.4	52.7	22.6	50.9	22.5	46.5	22.1	46.4	22.7	42.4	23.9	53.2
255	17.5	46.4	22.6	49.2	22.5	50.8	22.5	45.3	22.3	44.8	22.5	42.9	23.4	53.2
285	16.9	46.7	22.6	47.3	22.5	50.6	22.5	44.1	22.4	43.1	22.2	43.2	23.3	53.2
315	16.2	46.5	22.4	47.3	22.4	50.5	22.5	42.9	22.4	42.4	22.0	43.5	23.0	53.2
345	15.4	51.1	22.1	47.7	22.4	50.4	22.5	41.9	22.1	42.7	21.7	43.8	22.8	53.1
375	14.7	53.7	21.9	48.0	22.3	50.2	22.3	41.4	21.9	43.1	21.5	44.1	22.5	53.1
405	14.3	55.0	21.4	48.3	22.2	50.2	22.1	42.1	21.6	43.4	21.2	44.4	22.2	53.1
435	14.3	55.0	21.4	48.7	22.0	50.5	21.8	42.5	21.3	43.8	21.0	44.7	21.9	53.0
465				49.0	21.7	50.9	21.5	43.0	21.1	44.2	20.7	45.0	21.6	53.0
495				49.3	21.5	51.2	21.3	43.5	20.8	44.6	20.5	45.3	21.3	53.0
525				49.7	21.2	51.6	21.0	43.9	20.5	45.0	20.3	45.6	21.1	52.9
555				50.0	21.0	52.0	20.7	44.4	20.3	45.4	20.0	45.9	20.8	52.9
585				50.3	20.7	52.3	20.5	44.9	20.0	45.8	19.8	46.2	20.5	52.9
615				50.6	20.5	52.7	20.2	45.3	19.7	46.2	19.5	46.4	20.2	52.8
645				51.0	20.2	53.0	19.9	45.8	19.5	46.6	19.3	46.7	19.9	52.8
675				51.3	19.9	53.4	19.6	46.3	19.2	47.0	19.0	47.0	19.6	52.8
705				51.6	19.7	53.8	19.4	46.8	18.9	47.4	18.8	47.3	19.4	52.8
735				52.0	19.4	54.1	19.1	47.2	18.7	47.8	18.5	47.6	19.1	52.7
765				52.3	19.2	54.5	18.8	47.7	18.4	48.2	18.3	47.9	18.8	52.7
795				52.6	18.9	54.9	18.6	48.2	18.1	48.6	18.0	48.2	18.5	52.7
825				52.9	18.7	55.2	18.3	48.6	17.9	49.0	17.8	48.5	18.2	52.6
855				53.3	18.4	55.6	18.0	49.1	17.6	49.4	17.5	48.8	17.9	52.6
885				53.6	18.1	55.9	17.8	49.6	17.3	49.8	17.3	49.1	17.7	52.6
915				53.9	17.9	56.3	17.5	50.0	17.1	50.2	17.1	49.4	17.4	52.5
945				54.3	17.6	56.7	17.2	50.5	16.8	50.6	16.8	49.7	17.1	52.5
975				54.6	17.4	57.0	17.0	51.0	16.5	51.0	16.4	50.0	16.8	52.5
1005				54.9	17.1	57.4	16.7	51.4	16.3	51.4	16.3	50.3	16.5	52.4
1035				55.2	16.9	57.7	16.4	51.9	16.0	51.8	16.1	50.6	16.3	52.4
1065				55.6	16.6	58.1	16.2	52.4	15.7	52.2	15.8	50.9	16.0	52.4
1095				55.9	16.3	58.5	15.9	52.9	15.5	52.6	15.4	51.2	15.7	52.4
1125				56.2	16.1	58.8	15.6	53.3	15.2	53.0	15.3	51.5	15.4	52.3
1155				56.6	15.8	59.2	15.4	53.8	14.9	53.4	15.1	51.8	15.1	52.3
1185				56.9	15.6	59.5	15.1	54.3	14.7	53.8	14.8	52.1	14.8	52.3
1215				57.2	15.3	59.9	14.8	54.7	14.4	54.1	14.6	52.4	14.6	52.2
1245				57.6	15.1	60.3	14.5	55.2	14.1	54.5	14.4	52.7	14.3	52.2
1275				57.9	14.8	60.6	14.3	55.7	13.9	54.9	14.1	53.0	14.0	52.2
1305				58.2	14.5	61.0	14.0	56.1	13.6	55.3	13.9	53.3	13.7	52.1
1335				58.5	14.3	61.4	13.7	56.6	13.3	55.7	13.6	53.6	13.4	52.1
1365				58.9	14.0	61.7	13.5	57.1	13.1	56.1	13.5	53.7	13.3	52.1
1395				59.2	13.8	62.1	13.2	57.5	12.8	56.5				
1425				59.5	13.5	62.4	12.9	58.0	12.5	56.9				
1455				59.9	13.3	62.8	12.7	58.5	12.3	57.3				
1485				60.2	13.0	63.2	12.4	59.0	12.0	57.7				
1515				60.5	12.7	63.5	12.1	59.4	11.7	58.1				
1545				60.9	12.5	63.8	11.9	59.8	11.5	58.4				
1575				61.3	12.2	63.9	11.6	59.7	11.2	58.3				
1605				61.6	12.0	63.7	11.4	59.4	11.0	57.9				
1635				62.3	11.8	63.5	11.2	59.1	10.8	57.6				
1665				62.9	11.5	63.3	11.0	58.7	10.6	57.2				
1695				63.4	11.3	63.2	10.8	58.4	10.4	56.8				
1725				63.9	11.0	63.0	10.5	58.1	10.1	56.4				
1755				64.4	10.8	62.8	10.3	57.7	9.9	56.1				
1785				64.9	10.6	62.6	10.1	57.4	9.7	55.7				
1815				65.4	10.3	62.4	9.9	57.1	9.5	55.3				
1845				65.9	10.1	62.3	9.7	56.7	9.3	54.9				
1875				66.4	9.9	62.1	9.4	56.4	9.0	54.6				
1905				66.9	9.6	61.9	9.2	56.1	8.8	54.2				

NOTE: Average altitude(ALT): meters
Temperature(TEMP): Deg. Celsius
Relative humidity(RH): %
Atmospheric Pressure(A.P.): in. Hg

* TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

TABLE NO. E3
AIRCRAFT NOISE PROPAGATION

METEOROLOGICAL DATA

(INTERPOLATED)*

(6/24/80)

TIME OF DAY

	5100	5130	6100	6130	7100	8100	9100
A.P.	30.04	30.03	30.04	30.04	30.04	30.06	30.06
ALT	TEMPER	TEMPER	TEMPER	TEMPER	TEMPER	TEMPER	TEMPER
101	18.4	80.3118.4	83.4117.3	88.2119.1	87.3120.2	83.4121.8	77.8124.3
151	18.7	79.9118.5	82.9118.2	87.8119.2	86.9120.2	83.4121.7	77.9124.2
451	19.5	77.6119.0	80.1118.7	84.9119.6	84.3120.3	82.5121.4	78.5123.9
751	20.3	75.3119.4	77.3119.3	82.0120.0	81.7120.3	81.6121.0	79.1123.6
1051	21.1	73.9119.9	74.4119.8	79.1120.4	79.1120.4	80.7120.7	79.8123.2
1351	21.9	70.6120.3	71.7120.4	74.2120.8	74.6120.5	79.8120.3	80.4122.9
1651	22.2	69.2120.5	70.1120.7	74.2121.0	74.6120.6	78.7120.3	80.0122.5
1951	22.1	68.7120.6	69.6120.8	73.2121.2	73.4120.8	77.3120.7	78.4122.2
2251	22.0	68.3120.6	69.2120.8	72.3121.4	72.2120.9	76.8121.2	76.5121.8
2551	21.9	68.0120.6	68.7120.9	71.4121.5	71.1121.1	74.4121.7	74.7121.4
2851	21.8	67.4120.7	68.2120.9	70.5121.7	69.9121.3	73.0122.1	72.8121.4
3151	21.7	67.2120.7	67.8121.0	69.4121.8	68.8121.5	71.5122.6	71.0121.6
3451	21.6	66.8120.7	67.3121.0	68.7121.9	67.8121.9	70.1123.1	69.1122.0
3751	21.5	66.4120.8	66.9121.0	67.8122.1	66.8121.8	68.6123.6	67.2122.3
4051	21.4	66.0120.8	66.4121.1	66.9122.2	65.3122.0	67.2124.0	65.4122.6
4351	21.3	65.3120.8	66.0121.1	66.0122.4	64.2122.2	65.7124.5	63.5122.9
4651	21.2	65.2120.9	65.5121.2	65.1122.5	63.0122.4	64.3125.0	61.7123.2
4951	21.1	64.8120.9	65.1121.2	64.2122.7	61.8122.6	62.9125.2	60.7123.4
5251	21.0	64.4121.0	64.6121.3	63.3122.7	61.2122.6	62.1125.0	60.9123.2
5551	20.9	64.0121.0	64.2121.3	62.4122.6	61.4122.5	62.1124.7	61.2123.0
5851	20.8	63.6121.0	63.7121.4	61.5122.4	61.7122.4	62.3124.5	61.4122.7
6151	20.7	63.2121.1	63.3121.2	61.4122.2	62.0122.2	62.6124.2	61.7122.5
6451	20.5	62.8121.1	62.8121.0	61.9122.0	62.3122.1	62.8124.0	62.0122.2
6751	20.4	62.5121.1	62.3120.7	62.5121.8	62.5121.9	63.0123.7	62.3122.0
7051	20.3	62.1121.2	61.9120.5	63.0121.6	62.8121.8	63.2123.5	62.5121.7
7351	20.2	61.7121.1	61.7120.2	63.5121.4	63.1121.7	63.5123.2	62.8121.5
7651	20.1	61.4120.9	62.0120.0	64.0121.2	63.4121.5	63.7122.9	63.1121.2
7951	19.9	61.7120.6	62.5119.7	64.6121.0	63.7121.4	63.9122.7	63.4120.9
8251	19.7	62.3120.3	62.9119.5	65.1120.9	64.0121.2	64.2122.4	63.6120.7
8551	19.4	62.9120.0	63.4119.2	65.6120.7	64.3121.1	64.4122.2	63.9120.4
8851	19.2	63.5119.7	63.8118.9	66.1120.5	64.6120.9	64.6121.9	64.2120.2
9151	19.0	64.1119.5	64.3118.7	66.6120.3	64.9120.8	64.9121.7	64.5119.9
9451	18.7	64.8119.2	64.7118.4	67.2120.1	65.2120.6	65.4122.4	64.9119.7
9751	18.5	65.4118.9	65.1118.2	67.7119.9	65.5120.3	66.2121.1	65.5119.4
10051	18.3	66.0118.6	65.6117.9	68.2119.7	65.8120.0	67.0120.7	66.4119.1
10351	18.0	66.6118.3	66.0117.7	68.7119.5	66.1119.8	67.9120.4	67.2118.9
10651	17.8	67.2118.0	66.5117.4	69.3119.3	66.6119.5	68.7120.0	68.1118.6
10951	17.5	67.8117.8	66.9117.2	69.8119.0	67.3119.2	69.6119.6	68.9118.4
11251	17.3	68.4117.5	67.4116.9	70.3118.7	67.9118.9	70.5119.3	69.8118.1
11551	17.1	69.1117.2	67.8116.7	70.8118.4	68.5118.6	71.3118.9	70.6117.9
11851	16.9	70.0116.9	68.3116.4	71.4118.2	69.1118.4	72.2118.5	71.5117.6
12151	16.7	71.4116.6	68.7116.1	71.9117.9	69.8118.1	73.0118.2	72.4117.4
12451	16.6	72.9116.3	69.2115.9	72.4117.6	70.4117.8	73.9117.8	73.2117.1
12751	16.4	74.4116.1	69.6115.6	72.9117.4	71.0117.5	74.7117.5	74.1116.8
13051	16.3	75.9115.8	70.1115.4	73.4117.1	71.7117.2	75.6117.1	74.9116.4
13351	16.1	76.4115.5	70.5115.1	74.0116.8	72.3117.0	76.5116.7	75.8116.3
13651	16.0	74.5115.2	71.0114.9	74.5116.5	72.9116.7	77.3116.3	76.4116.1
13951	15.8	70.4114.9	71.4114.6	75.0116.3	73.5116.4	78.2116.0	77.5115.8
14251	15.6	66.2114.7	71.9114.4	75.5116.0	74.2116.1	79.0115.6	77.5115.6
14551	15.4	62.1114.4	72.3114.1	76.1115.7	74.8115.8	79.9115.4	73.4115.3
14851	15.3	58.0114.1	72.8113.8	76.6115.4	75.4115.4	80.7115.3	68.9115.0
15151	15.1	53.8113.8	73.2113.6	77.1115.2	76.0115.3	81.6115.2	58.4114.8
15451	14.9	50.3113.6	72.8113.4	76.5114.9	76.5115.0	82.4115.2	50.9114.5
15751	14.7	48.7113.4	70.2113.3	75.0114.4	76.0114.6	83.1115.1	45.4114.3
16051	14.5	48.3113.3	66.4113.3	67.5113.9	73.8114.2	83.5115.2	42.2114.2
16351	14.3	47.9113.2	62.6113.2	62.1113.9	65.1114.0	78.3115.3	39.3114.0
16651	14.0	47.5113.2	58.9113.2	54.6114.2	50.6114.0	65.9115.4	34.3113.9
16951	13.8	47.1113.1	55.1113.2	51.1114.6	34.9114.0	51.7115.5	34.4113.7
17251	13.6	44.7113.0	51.3113.2	45.7114.7	30.9114.1	40.3114.1	13.6113.6
17551	13.3	46.3112.9	47.6113.1	40.2114.4	31.7114.1	34.0114.1	13.4113.3
17851	13.1	45.9112.8	43.8113.1	34.8114.2	32.5114.1	35.9114.1	13.2113.2
18151	12.9	45.5112.7	40.0113.1	30.4113.9	33.3114.1	35.8114.1	13.1113.1
18451	12.7	45.1112.6	36.3112.9	29.5113.7	34.2114.1	35.7114.1	12.9112.9
18751	12.4	44.7112.5	32.5112.7	30.8113.5	35.0114.1	35.6114.1	12.8112.8
19051	12.2	44.3112.3	31.2112.4	32.1113.2	35.8114.1	35.5114.1	12.6112.6

NOTE: Average altitude(ALT): meters
Temperature(TEMP): Deg. Celsius
Relative humidity(RH): %
Atmospheric Pressure(A.P.): in. Hg

8 TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

TABLE NO. E4
AIRCRAFT NOISE PROPAGATION

METEOROLOGICAL DATA

(INTERPOLATED)*

(6/25/80)

TIME OF DAY

	5100	5130	6100	6130	7100	8100	9100							
A.P.	30.02	30.02	30.04	30.03	30.03	30.04	30.06							
ALT	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH							
10	19.7	94.2	19.4	89.5	19.0	93.4	19.4	49.0	19.8	87.8	22.4	80.1	24.2	71.9
15	19.8	93.7	19.5	89.2	19.1	93.0	19.4	50.2	19.7	87.3	22.3	80.3	24.1	72.1
45	19.9	91.0	19.7	87.9	19.5	91.1	20.1	57.3	19.3	85.1	21.4	81.7	23.4	73.4
75	20.1	88.3	19.9	84.5	19.9	89.3	20.5	64.4	19.4	84.2	20.6	82.6	22.7	75.0
105	20.2	85.5	20.1	85.2	20.3	87.5	21.0	71.5	20.2	84.2	20.3	81.7	22.0	74.4
135	20.3	82.8	20.4	84.0	20.7	85.6	21.4	78.5	20.9	84.0	20.4	79.5	21.3	77.9
165	20.5	80.3	20.9	83.5	21.1	82.2	21.9	80.1	21.4	82.2	20.5	77.0	20.9	75.1
195	20.6	77.9	21.8	83.6	21.5	77.1	22.4	74.5	21.8	78.9	20.8	74.1	20.8	74.7
225	20.7	75.6	22.3	82.6	21.9	71.9	22.9	73.0	22.2	75.6	21.2	71.2	20.9	75.0
255	20.8	73.2	22.4	80.3	22.3	67.2	23.2	70.3	22.5	72.2	21.5	69.0	20.9	73.3
285	20.9	70.8	22.5	77.8	22.4	65.1	23.2	69.4	22.7	70.2	21.5	68.1	20.9	71.4
315	21.0	68.4	22.6	75.3	22.2	65.4	22.9	69.3	22.5	69.5	21.3	68.0	20.9	69.9
345	21.1	66.3	22.5	73.7	22.0	65.6	22.7	69.3	22.3	69.5	21.1	68.0	21.0	68.2
375	21.1	65.4	22.3	73.3	21.8	65.8	22.5	69.2	22.1	69.9	21.0	67.9	21.0	66.5
405	20.9	65.7	22.0	72.9	21.4	66.0	22.2	69.1	21.9	69.9	20.8	67.8	21.0	65.6
435	20.8	66.1	21.8	72.5	21.4	66.2	22.0	69.0	21.7	69.9	20.7	67.7	20.9	65.7
465	20.6	66.4	21.6	72.0	21.2	66.5	21.8	69.0	21.4	69.9	20.5	67.6	20.7	65.8
495	20.4	66.7	21.3	71.6	21.0	66.7	21.5	68.9	21.2	69.9	20.4	67.5	20.6	66.0
525	20.3	67.1	21.1	71.2	20.8	66.9	21.3	68.8	21.0	70.0	20.2	67.5	20.5	66.1
555	20.1	67.4	20.9	70.8	20.6	67.1	21.0	68.7	20.8	70.0	20.1	67.4	20.4	66.3
585	20.0	67.7	20.6	70.4	20.4	67.3	20.8	68.6	20.6	70.0	19.9	67.3	20.3	66.4
615	19.8	68.1	20.4	69.9	20.2	67.6	20.6	68.6	20.3	70.0	19.8	67.2	20.2	66.5
645	19.6	68.4	20.2	69.5	20.1	67.8	20.3	68.5	20.1	70.0	19.6	67.1	20.1	66.7
675	19.4	66.4	20.0	69.1	19.9	68.0	20.1	68.4	19.9	70.1	19.5	67.0	20.0	66.8
705	19.1	60.9	19.7	68.7	19.7	68.0	19.9	67.9	19.7	70.1	19.3	67.0	20.0	66.0
735	18.8	53.9	19.5	68.3	19.6	66.8	19.9	64.7	19.4	67.9	19.2	66.6	20.1	61.8
765	18.5	47.9	19.3	67.9	19.5	64.4	20.0	59.4	19.4	61.9	19.3	66.1	20.3	55.0
795	18.3	45.4	19.0	67.4	19.5	62.1	20.1	54.0	19.7	54.5	19.3	65.5	20.5	49.3
825	18.2	45.4	18.9	65.7	19.4	59.7	20.2	49.1	19.8	48.0	19.3	64.9	20.4	47.5
855	18.0	45.6	19.0	62.7	19.4	57.3	20.2	47.0	19.7	45.6	19.4	64.2	20.2	48.5
885	17.9	45.4	19.0	59.6	19.3	55.0	19.9	47.2	19.5	44.6	19.3	63.6	20.0	49.5
915	17.8	45.3	19.0	56.4	19.3	52.6	19.7	47.3	19.3	47.5	19.1	63.1	19.8	50.5
945	17.4	45.3	19.1	53.3	19.2	50.2	19.5	47.5	19.1	48.5	18.9	62.5	19.4	51.5
975	17.5	45.3	19.1	50.6	19.1	48.7	19.3	47.7	18.9	49.5	18.7	61.9	19.4	52.5
1005	17.4	45.3	18.9	49.4	18.9	48.1	19.1	47.8	18.7	50.4	18.5	61.3	19.2	53.5
1035	17.2	45.3	18.7	49.2	18.7	47.9	18.8	48.0	18.5	51.4	18.3	60.7	19.0	54.5
1065	17.1	45.3	18.5	49.0	18.5	47.6	18.4	48.2	18.2	52.4	18.1	60.2	18.8	55.5
1095	17.0	45.3	18.3	48.9	18.3	47.3	18.4	48.3	18.0	53.4	17.8	59.6	18.5	56.5
1125	16.8	45.3	18.1	48.7	18.1	47.0	18.2	48.5	17.8	54.3	17.6	59.0	18.3	57.5
1155	16.7	45.2	17.9	48.5	17.9	46.8	18.0	48.6	17.6	55.3	17.4	58.4	18.1	58.5
1185	16.6	45.2	17.7	48.4	17.7	46.5	17.8	48.8	17.4	56.3	17.2	57.5	17.9	59.5
1215	16.4	45.2	17.5	48.2	17.5	46.2	17.5	49.0	17.2	57.3	17.0	57.3	17.7	60.5
1245	16.3	45.2	17.3	48.0	17.2	45.9	17.3	49.1	16.9	58.2	16.8	56.7	17.5	60.4
1275	16.2	45.2	17.1	47.9	17.0	45.6	17.1	49.3	16.7	59.2	16.6	56.1	17.3	59.4
1305	16.0	45.2	16.9	47.7	16.8	45.4	16.9	49.5	16.5	60.2	16.4	55.5	17.1	58.3
1335	15.9	45.2	16.6	47.6	16.6	45.1	16.7	49.6	16.3	59.8	16.2	54.9	16.9	57.2
1365	15.8	45.2	16.4	47.4	16.4	44.8	16.4	49.8	16.2	58.1	16.0	54.3	16.7	56.2
1395	15.6	45.2	16.2	47.2	16.2	44.5	16.2	50.0	16.0	56.3	15.8	53.8	16.5	55.1
1425	15.5	45.1	16.0	47.1	16.0	44.3	16.0	50.1	15.8	54.6	15.6	53.2	16.3	54.1
1455	15.4	45.1	15.8	46.9	15.8	44.0	15.8	50.3	15.7	52.8	15.5	52.6	16.1	53.0
1485	15.2	45.1	15.6	46.7	15.6	43.7	15.6	50.5	15.5	51.0	15.1	52.0	15.9	51.9
1515	15.1	45.1	15.4	46.6	15.3	43.4	15.3	50.6	15.4	49.3	14.9	51.4	15.7	50.9
1545	15.0	44.5	15.2	46.5	15.1	43.4	15.1	50.7	15.2	47.9	14.7	51.0	15.5	50.0
1575	14.8	42.9	15.0	46.5	14.9	44.0	14.9	50.4	15.0	47.5	14.8	50.9	15.2	50.1
1605	14.6	41.2	14.8	46.6	14.7	45.0	14.6	50.0	14.7	47.6	14.2	51.0	15.0	51.1
1635	14.5	39.5	14.6	46.8	14.5	46.0	14.4	49.6	14.5	47.7	14.0	51.1	14.8	52.0
1665	14.3	37.7	14.4	46.9	14.3	47.1	14.1	49.2	14.3	47.8	13.7	51.2	14.6	52.9
1695	14.2	36.0	14.2	47.0	14.0	48.1	13.9	48.8	14.0	47.9	13.5	51.3	14.3	53.8
1725	14.0	35.1	14.0	47.1	13.8	49.1	13.6	48.4	13.8	47.9	13.2	51.4	14.1	54.7
1755	13.7	34.5	13.7	47.2	13.6	48.6	13.3	48.6	13.5	48.0	12.9	51.5	13.9	55.7
1785	13.4	33.3	13.5	48.0	13.5	48.3	13.3	48.6	13.3	48.1	12.7	51.6	13.6	56.6
1815	13.1	42.1	13.2	49.7	13.3	44.0	12.7	54.0	13.0	48.2	12.4	51.7	13.4	57.5
1845	12.8	44.9	13.0	51.5	13.2	41.6	12.3	57.4	12.8	48.3	12.2	52.8	13.2	58.4
1875	12.5	47.8	12.7	53.3	13.0	39.3	12.0	60.8	12.6	49.2	12.0	53.0	12.9	59.3
1905	12.2	50.6	12.4	55.1	12.2	37.0	11.7	64.2	12.3	51.2	11.7	57.1	12.7	60.2

NOTE: Average altitude(ALT): meters
Temperature(TEMP): Deg. Celsius
Relative humidity(RH): %
Atmospheric Pressure(A.P.): in. Hg

* TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

TABLE NO. 25
AIRCRAFT NOISE PROPAGATION

METEOROLOGICAL DATA

(INTERPOLATED)*

(4/24/80)

TIME OF DAY

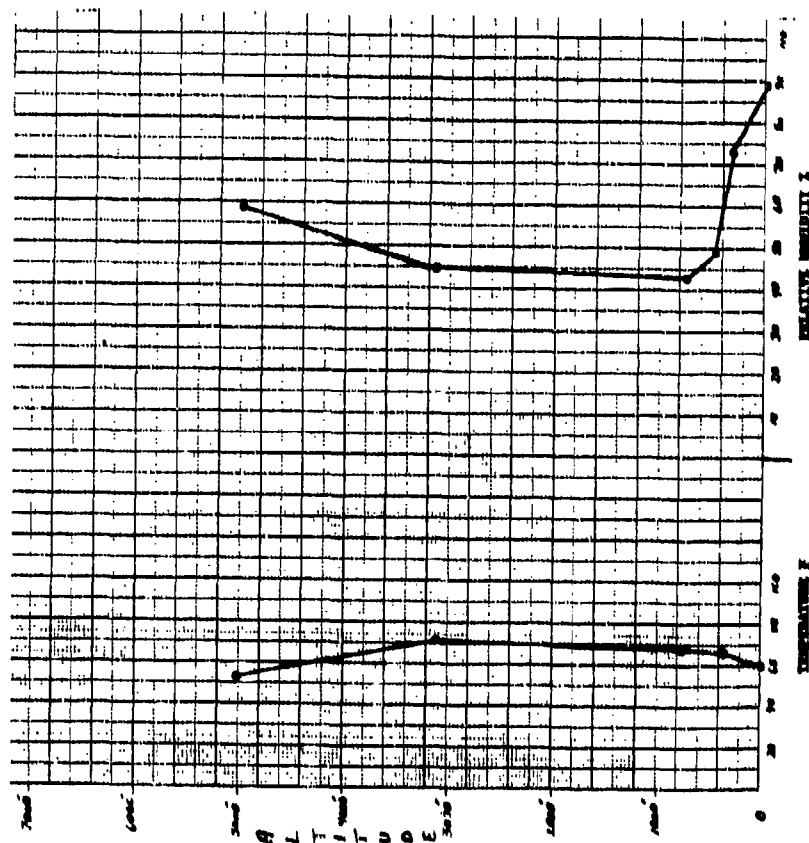
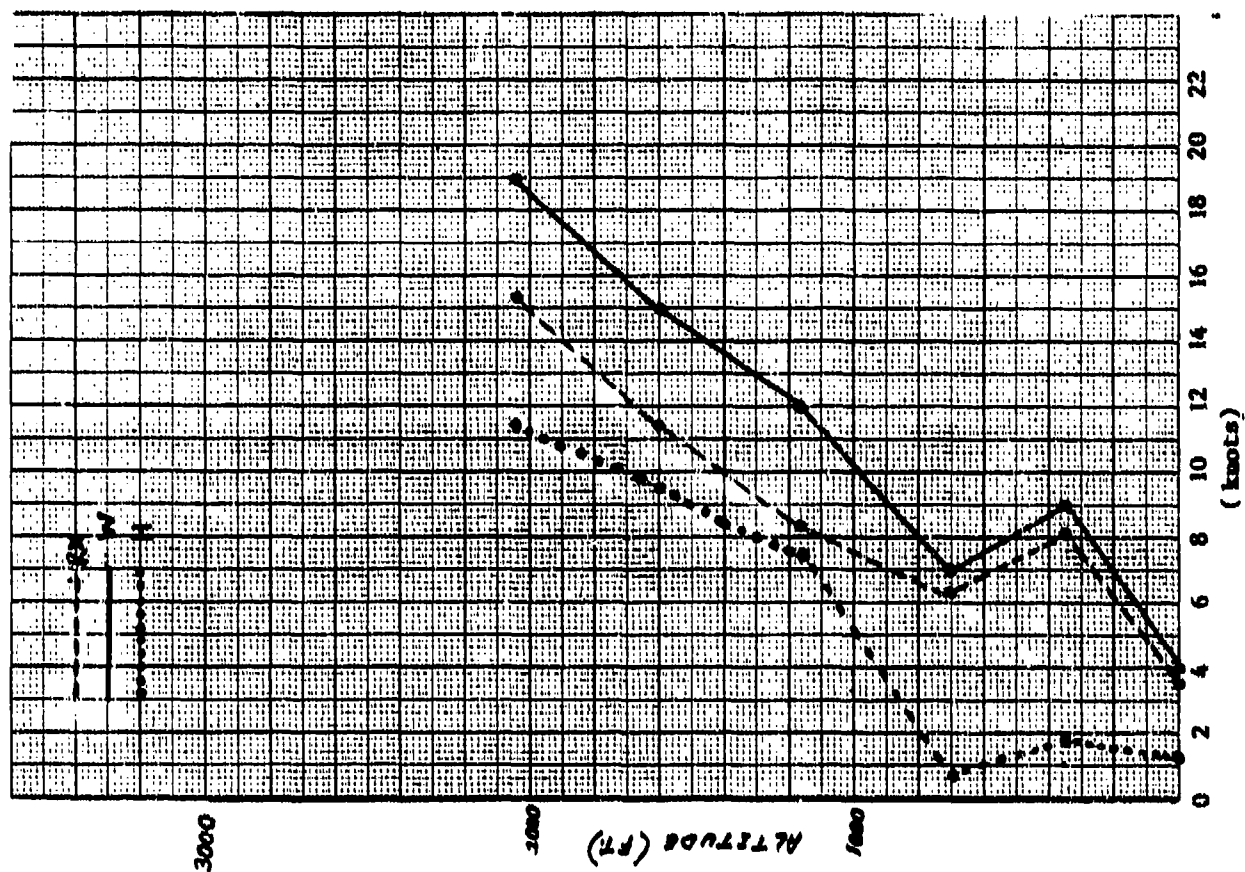
	5100	5130	6130	7100	8100	9100
A.P.	29.94	29.94	29.93	29.93	29.93	29.94
ALT	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH	TEMPERH
10	17.8	94.8	18.5	94.4	19.1	92.5
15	17.9	94.4	18.6	94.1	19.2	92.2
45	18.3	91.7	18.7	92.0	19.3	91.0
75	18.7	89.1	19.2	90.0	19.8	89.8
105	19.2	86.4	19.8	87.9	19.6	88.4
135	19.5	84.8	19.7	86.7	19.7	88.0
165	19.7	83.4	19.6	86.5	19.6	88.0
195	20.0	82.4	19.6	86.3	19.5	88.1
225	20.0	82.0	19.5	86.1	19.4	88.1
255	19.7	82.3	19.5	85.9	19.4	88.1
285	19.4	82.6	19.5	85.7	19.4	88.1
315	19.1	82.9	19.4	85.4	19.3	88.2
345	18.8	83.2	19.4	85.2	19.2	88.2
375	18.6	83.4	19.3	85.0	19.1	88.1
405	18.3	83.7	19.2	84.9	18.9	88.0
435	18.0	84.0	18.9	85.0	18.7	87.9
465	17.7	84.3	18.7	85.0	18.5	87.8
495	17.4	84.6	18.4	85.1	18.2	87.7
525	17.2	84.8	18.2	85.1	18.0	87.5
555	16.9	85.1	17.9	85.2	17.8	87.4
585	16.6	85.4	17.7	85.2	17.6	87.3
615	16.3	85.6	17.4	85.3	17.4	87.2
645	16.1	85.7	17.1	85.3	17.1	87.1
675	15.9	85.7	16.9	85.4	16.9	86.9
705	15.7	85.6	16.6	85.4	16.7	86.8
735	15.5	85.6	16.4	85.5	16.5	86.7
765	15.3	85.6	16.1	85.5	16.3	86.6
795	15.1	85.6	15.9	85.6	16.0	86.5
825	14.9	85.5	15.6	85.6	15.8	86.3
855	14.7	85.5	15.4	85.7	15.6	86.2
885	14.5	85.5	15.1	85.7	15.4	86.1
915	14.3	85.5	14.8	85.8	15.2	86.0
945	14.1	85.4	14.6	85.8	14.9	85.9
975	13.9	85.4	14.3	85.9	14.6	85.8
1005	13.7	85.4	14.1	85.9	14.5	85.8
1035	13.5	85.4	13.8	86.0	14.3	85.8
1065	13.3	85.4	13.6	86.0		
1095	13.1	85.3	13.6	86.0		
1125	12.9	84.8				
1155	12.8	82.4				
1185	12.7	78.0				
1215	13.2	68.5				
1245	13.9	58.3				
1275	14.7	42.1				
1305	15.4	28.9				
1335	16.1	16.2				
1365	16.4	10.0				
1395	16.1	9.9				
1425	15.9	9.9				
1455	15.7	9.8				
1485	15.5	9.7				
1515	15.2	9.7				
1545	15.0	9.6				
1575	14.7	9.5				
1605	14.4	9.5				
1635	14.2	9.4				
1665	13.9	9.3				
1695	13.7	9.2				
1725	13.4	9.2				
1755	13.1	9.1				
1785	12.9	9.0				
1815	12.6	9.0				
1845	12.3	7.8				
1875	12.0	4.9				
1905	11.7	1.6				

NOTE: Average altitude(ALT): meters
Temperature(TEMP): Deg. Celsius
Relative Humidity(RH): %
Atmospheric Pressure(A.P.): in. Hg

* TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

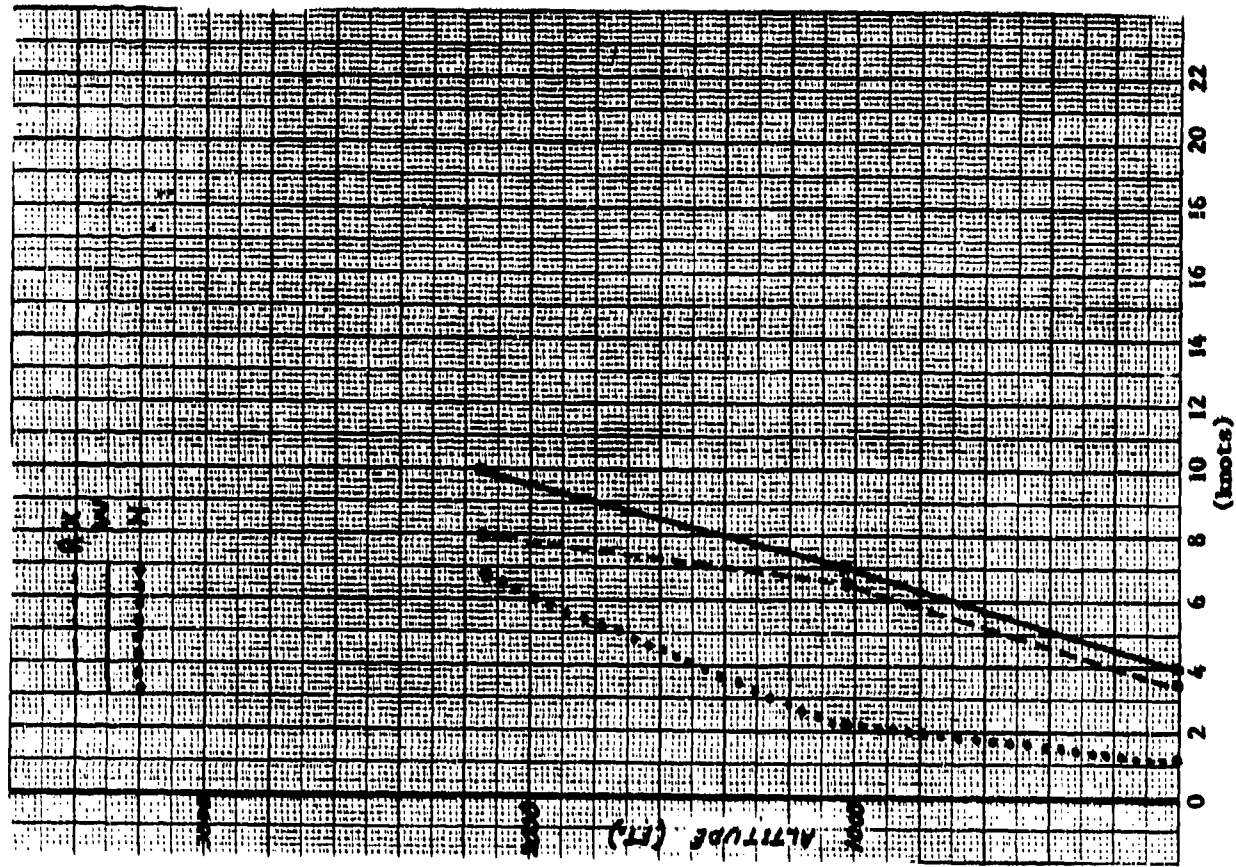
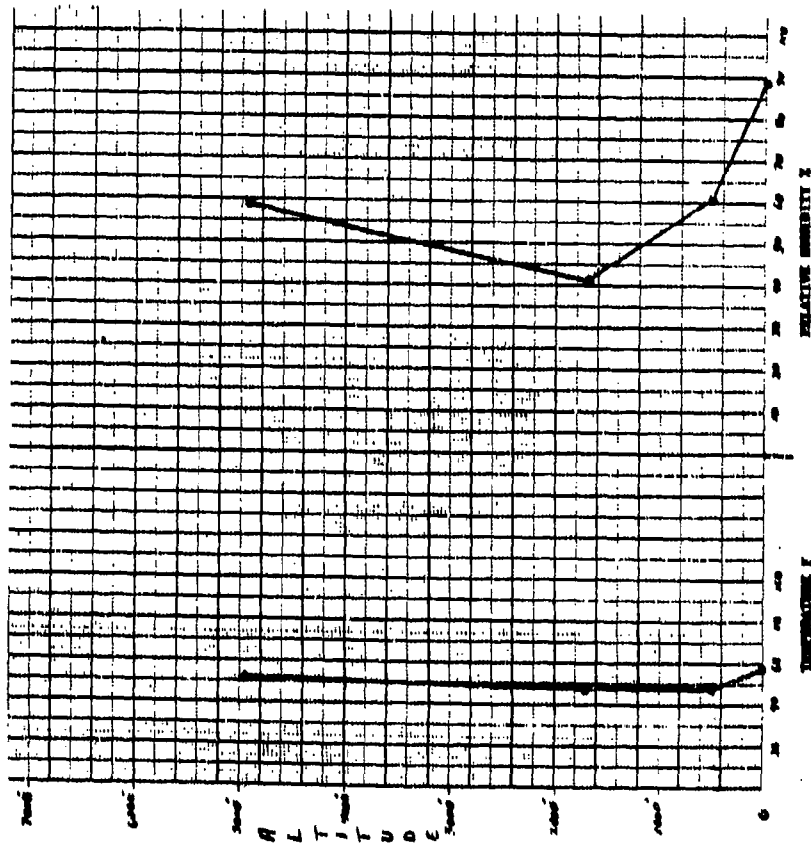
DATE 6/24/80
 ASC. NO. 2
 LAUNCH TIME 5:35 AM

FIGURE E1-1



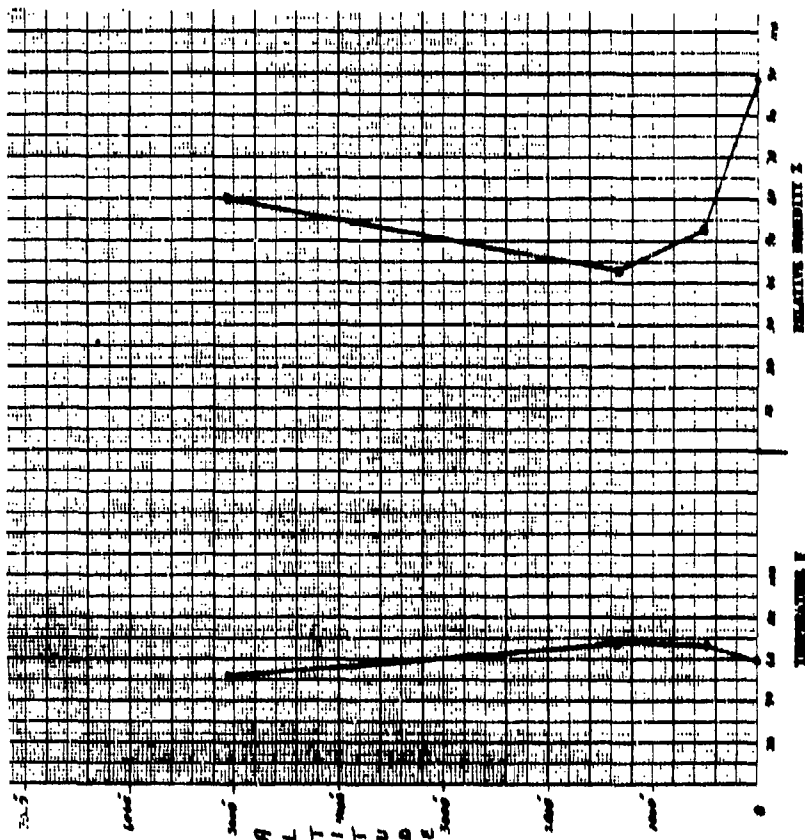
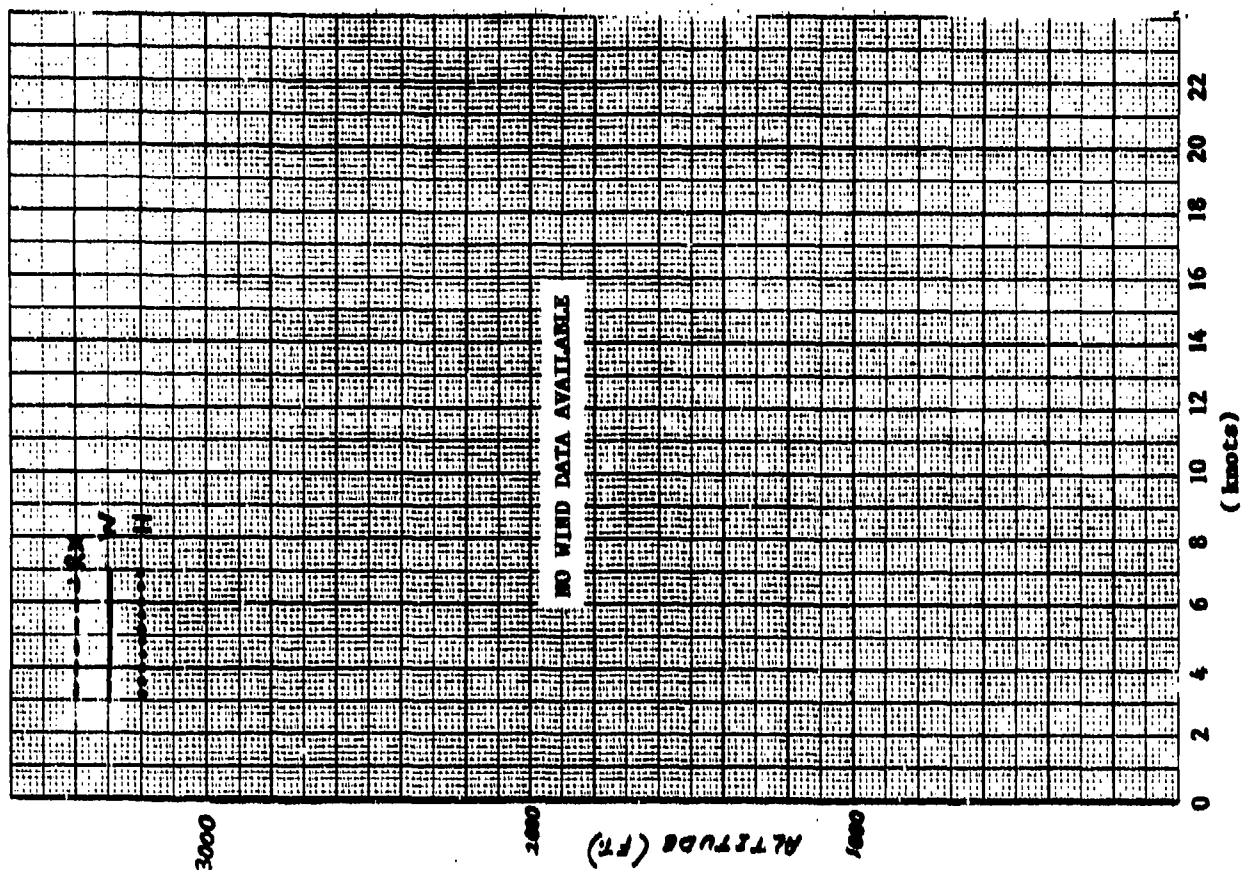
DATE 6/22/30
 ASC. NO. 3
 LAUNCH TIME 6:11 P.M.

FIGURE E1-2



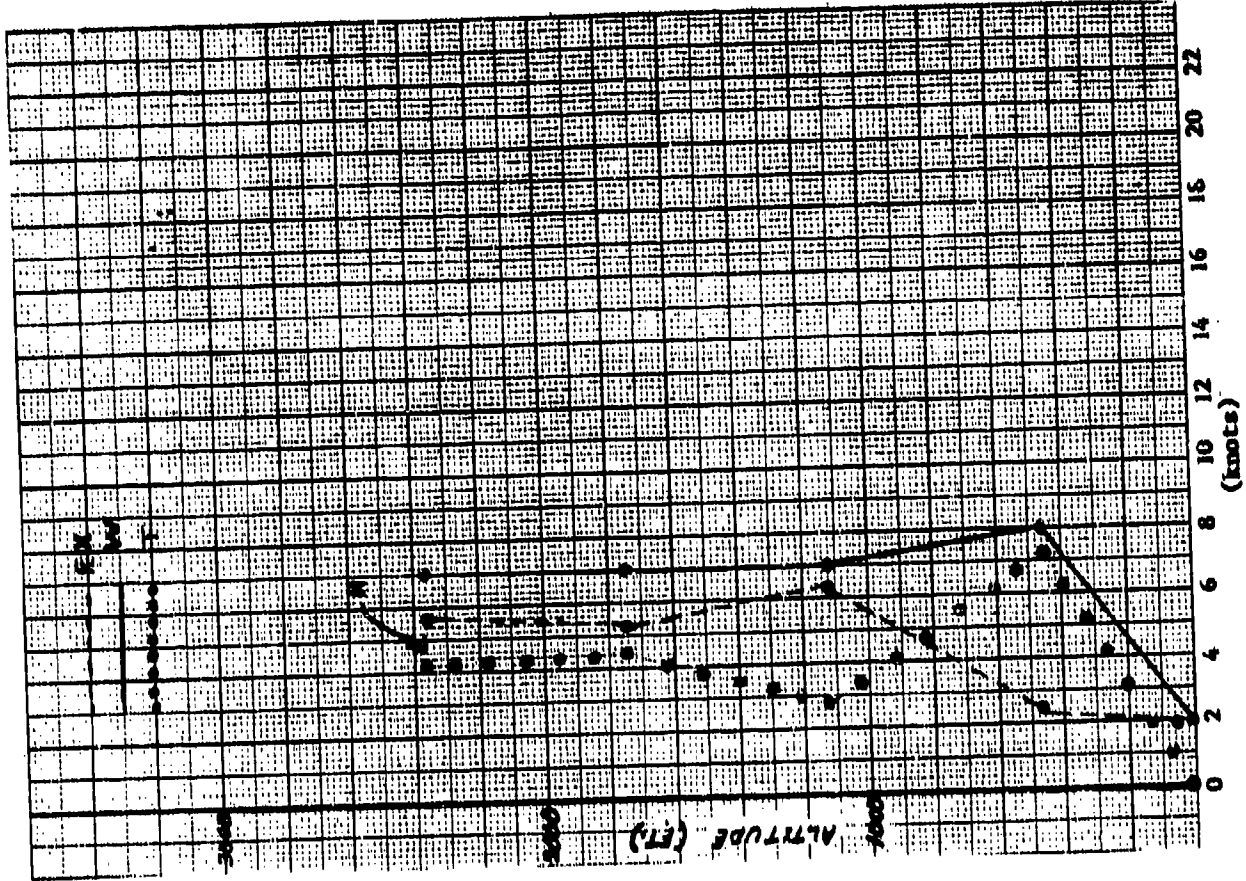
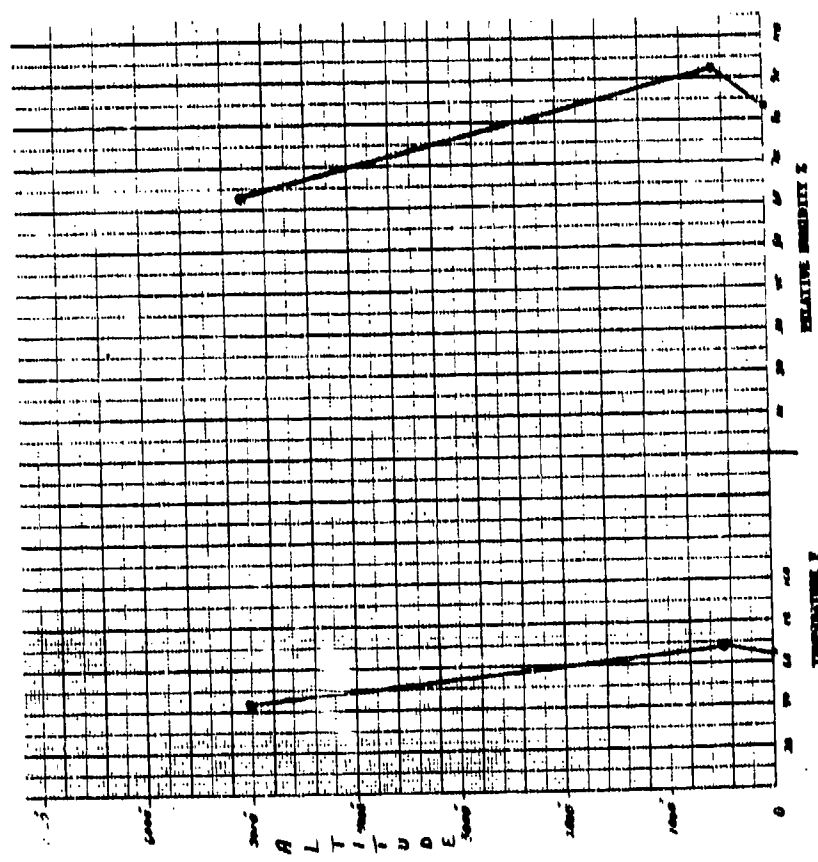
DATE 6/23/80
 ASC. NO. 4
 LAUNCH TIME 6:30 AM

FIGURE E1-3



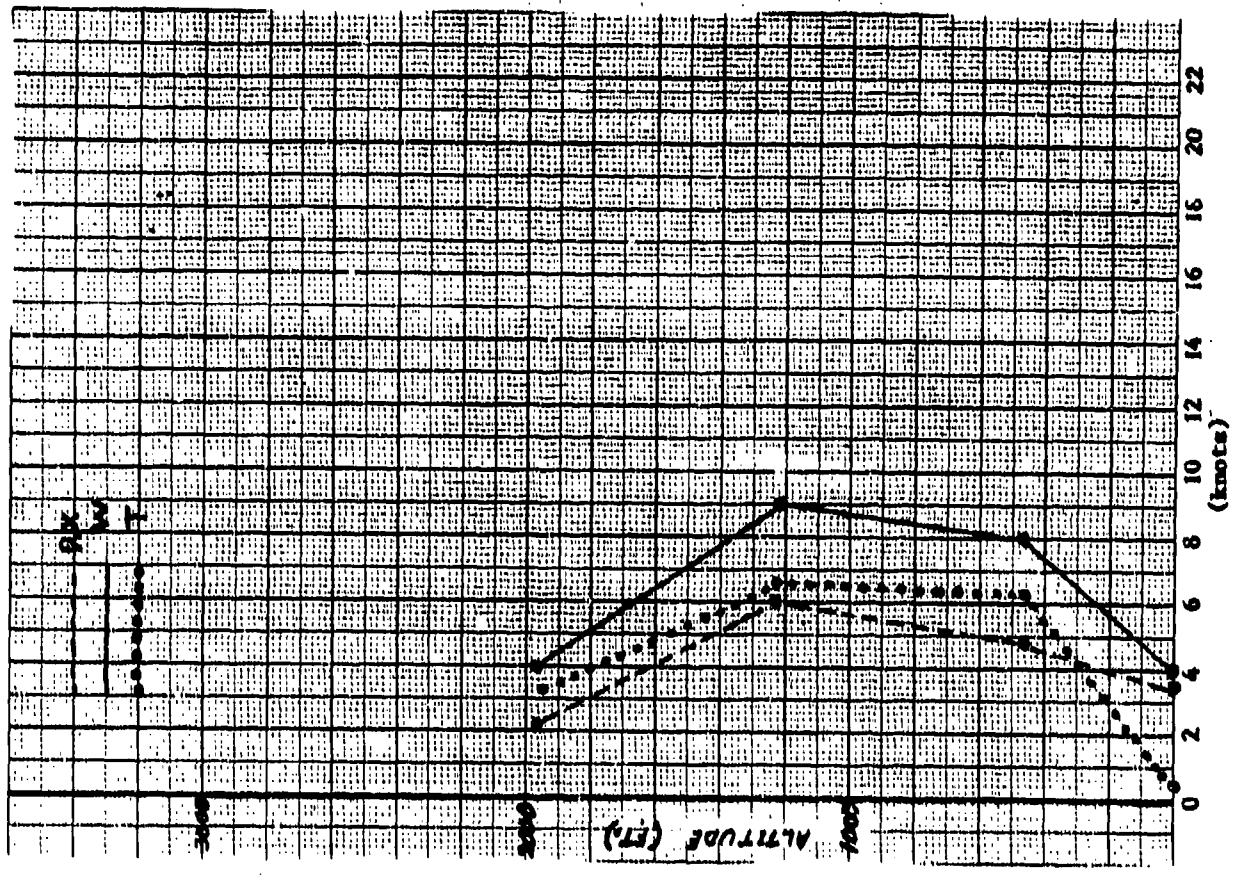
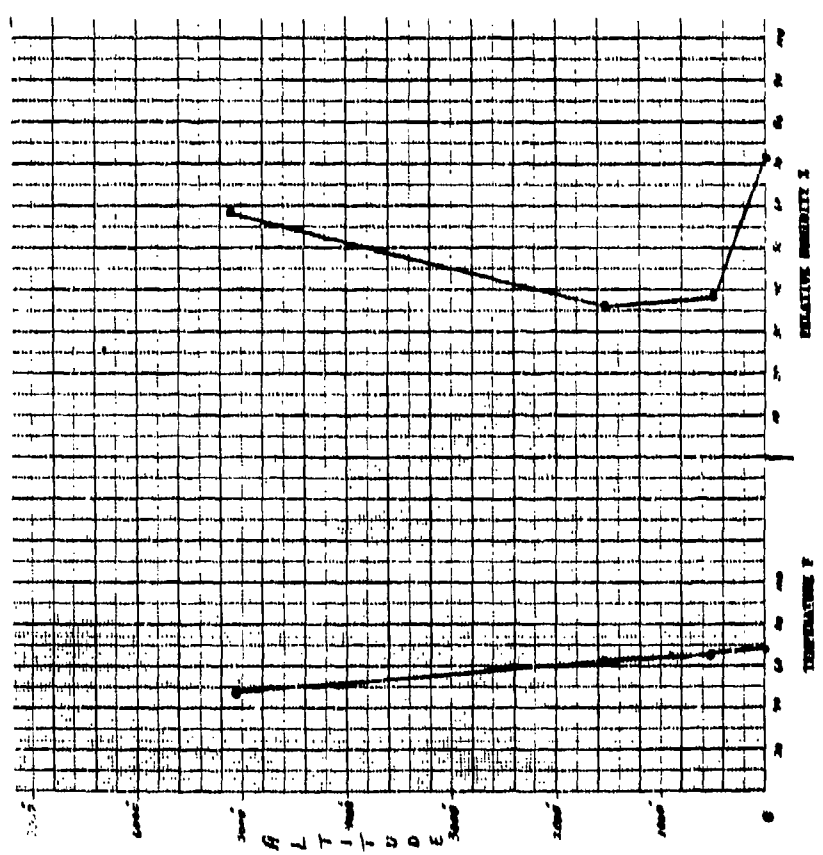
DATE 6/2-80
 ASC. NO. 5
 LAUNCH TIME 7:00 AM

FIGURE E1-4



DATE 6/22/50
 ASC. NO. 6
 LAUNCH TIME 8:00 AM

FIGURE E1-5



DATE 6/22/30
 ASC. NO. 7
 LAUNCH TIME 5:00 PM

FIGURE R1-6

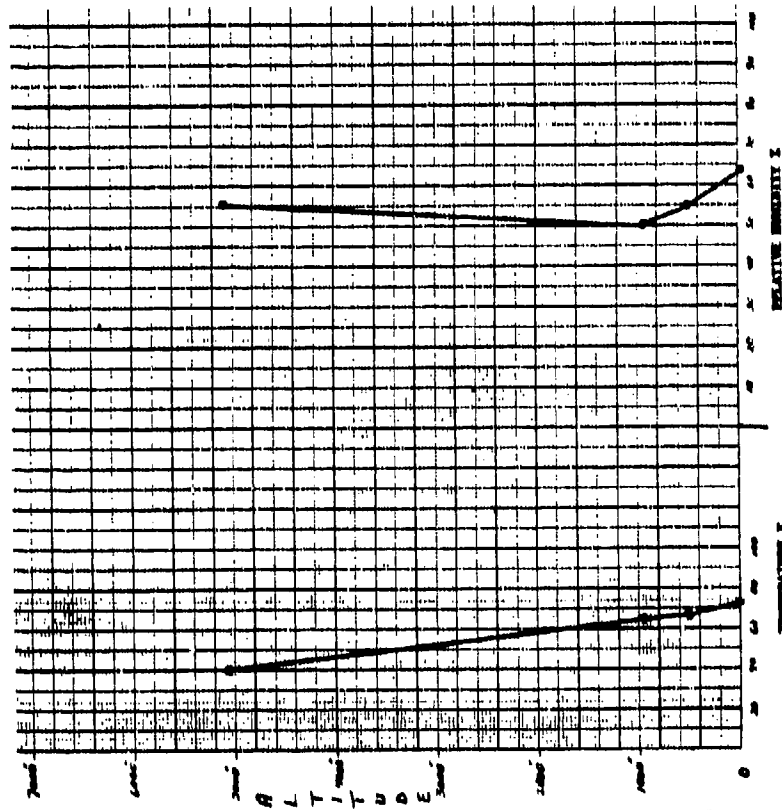
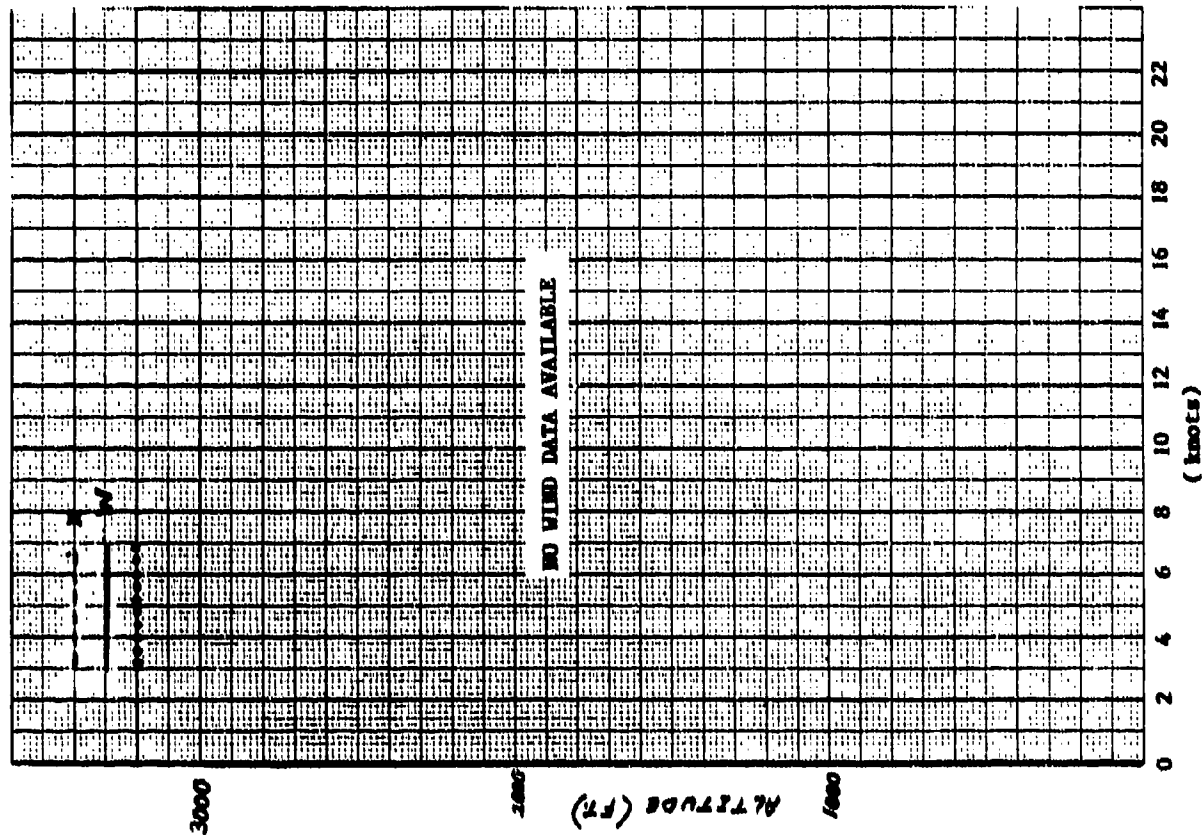
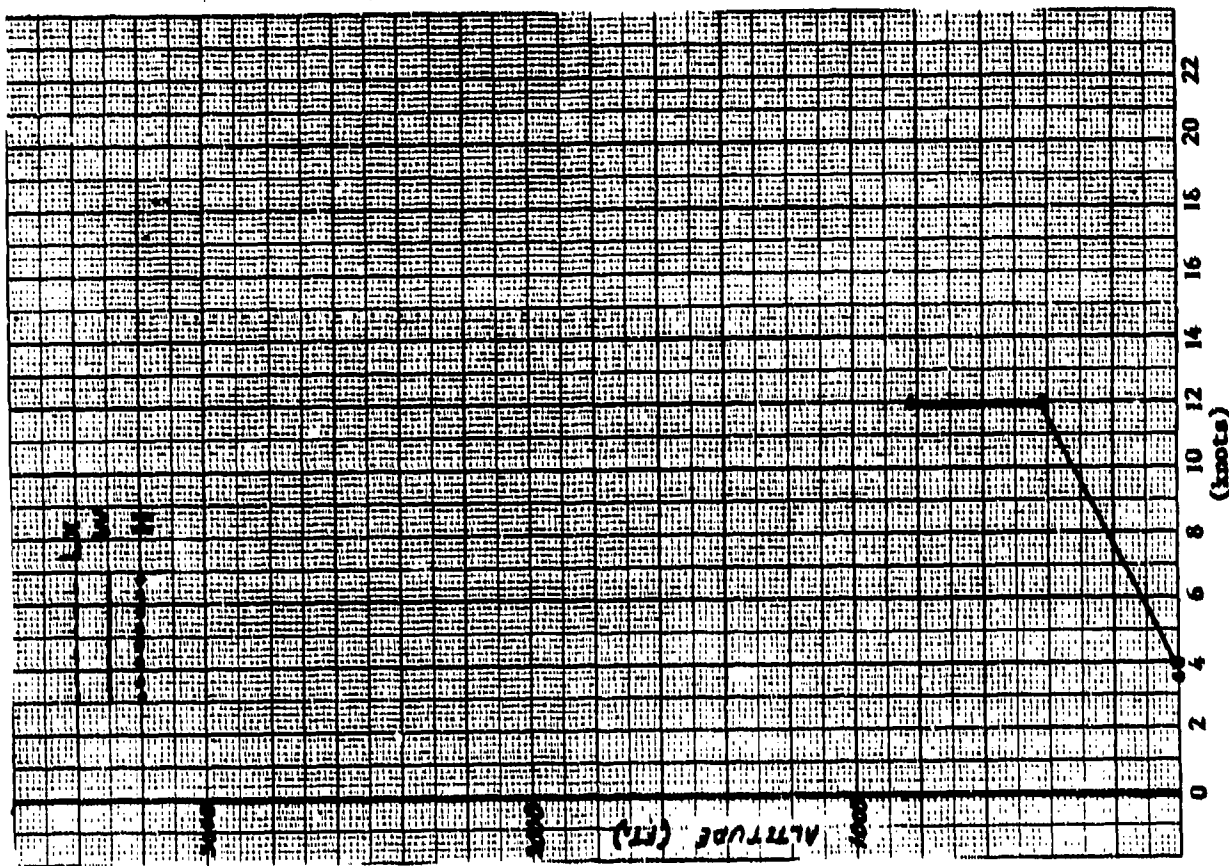
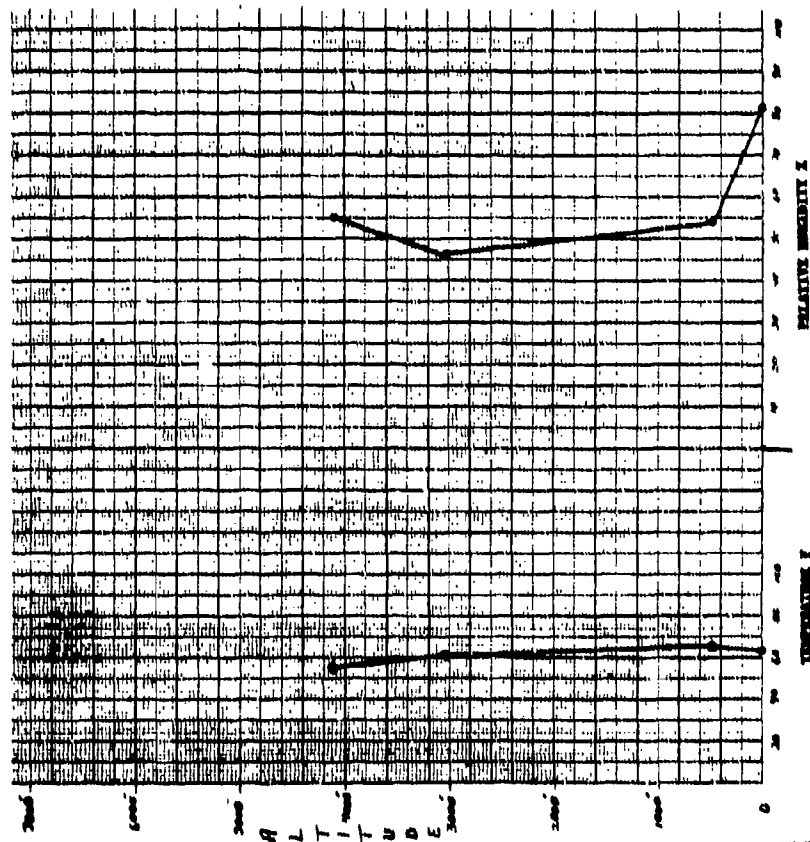


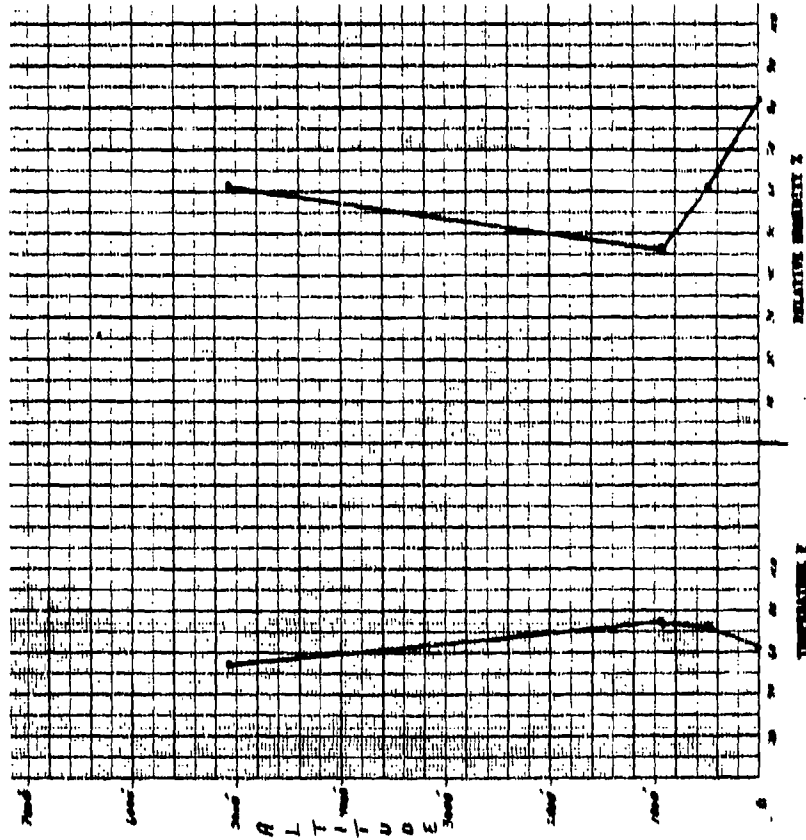
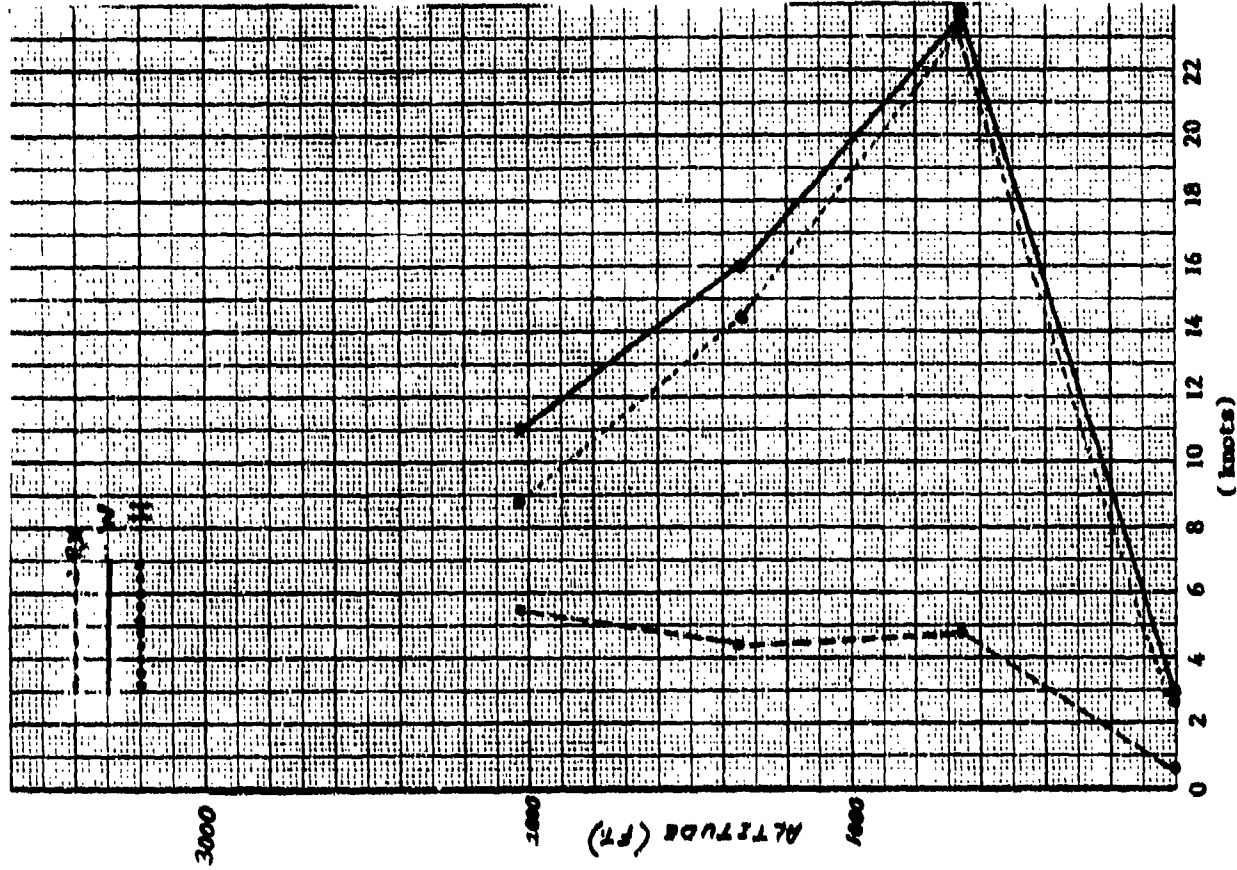
FIGURE E2-1

DATE 6/23/80
 ASC. NO. 8
 LAUNCH TIME 5:00 AM



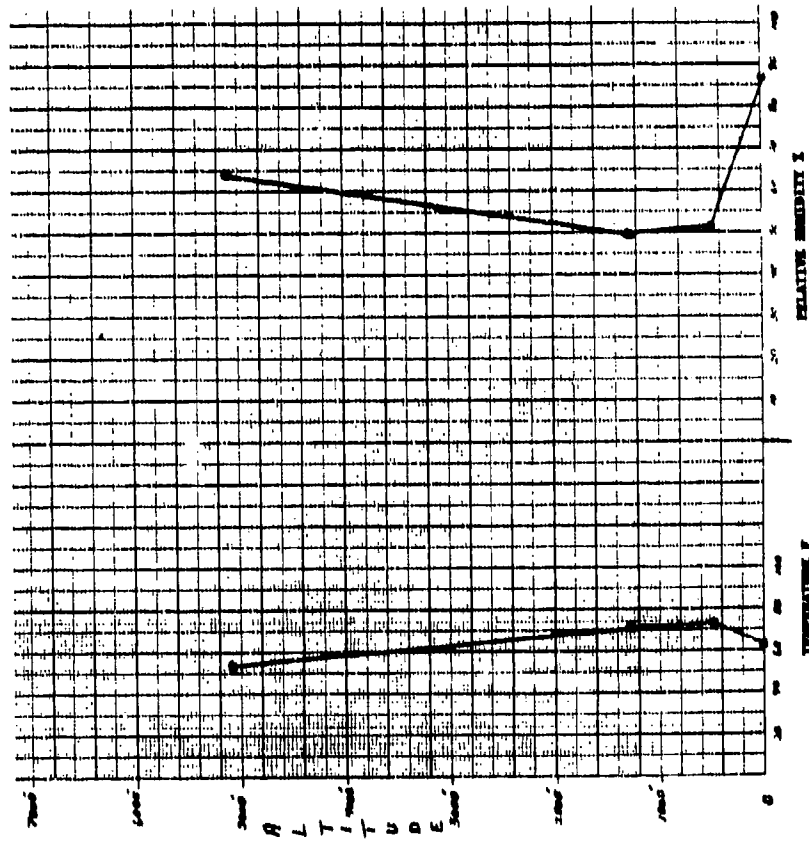
DATE 6/2/3
 ASC. NO. 1
 LAUNCH TIME 5:50 PM

FIGURE E2-2



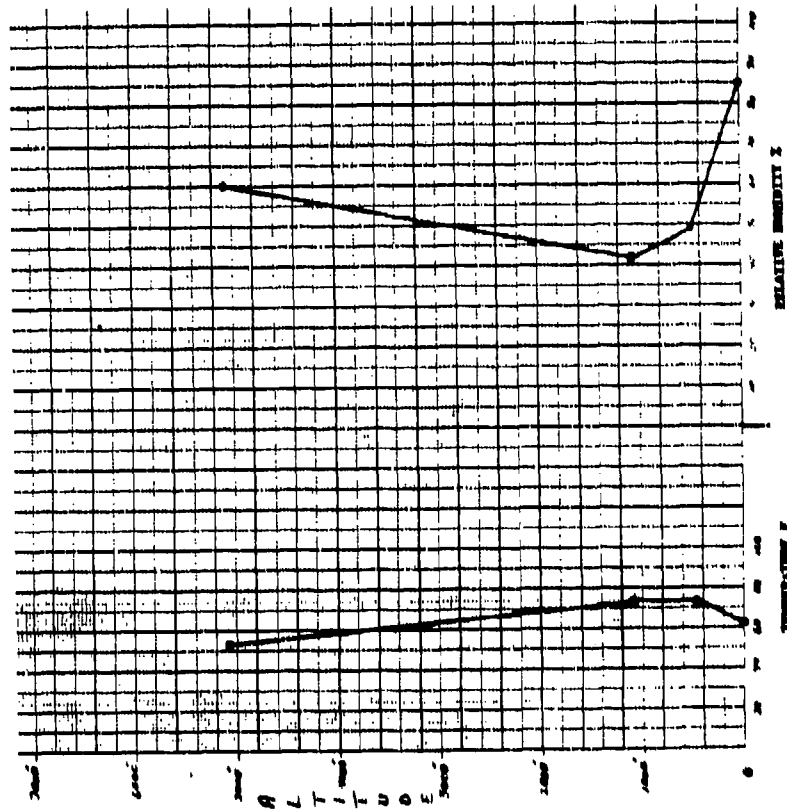
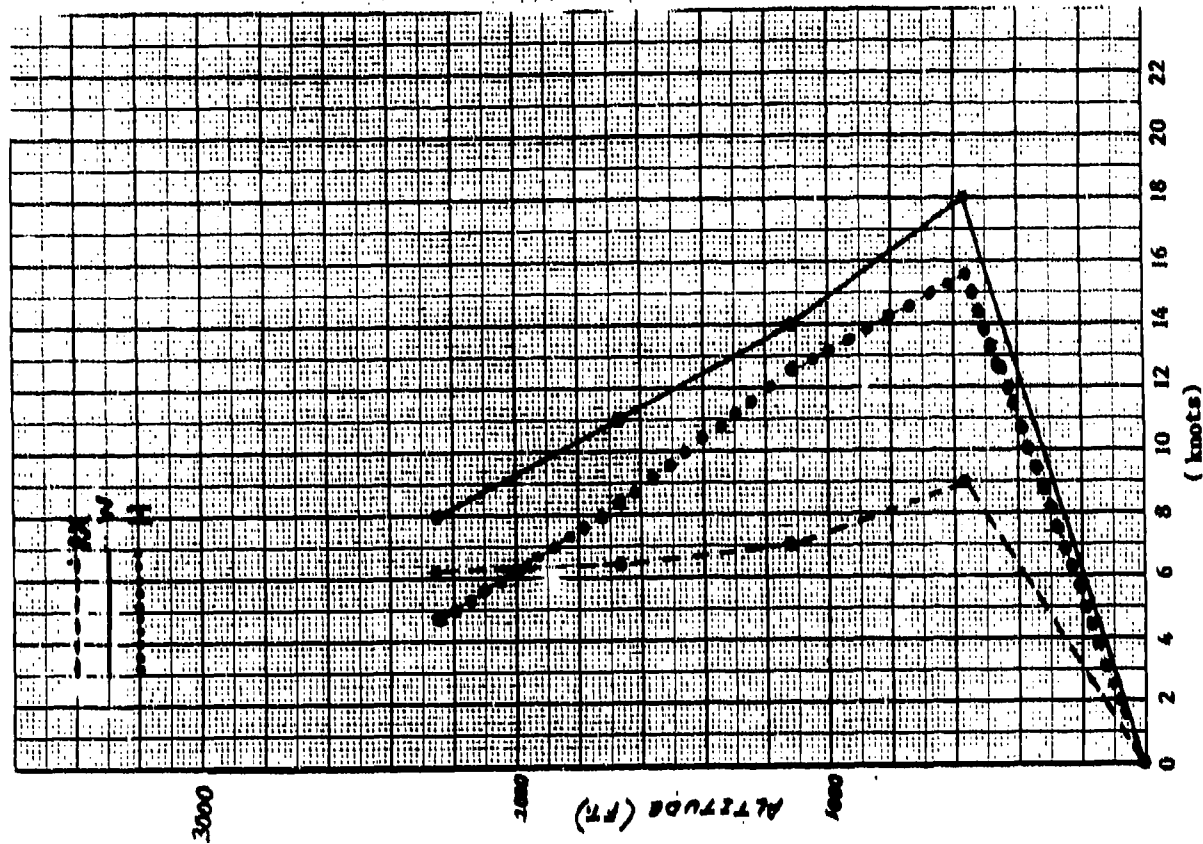
DATE 6/23/80
 ASC. NO. 10
 LAUNCH TIME 11:00 AIA

FIGURE E2-3



DATE 6/22/92
 ASC. NO. 11
 LAUNCH TIME 6:50 PM

FIGURE E2-4



DATE 6/27/30
 ASC. NO. 12
 LAUNCH TIME 7:03 AM

FIGURE E2-5

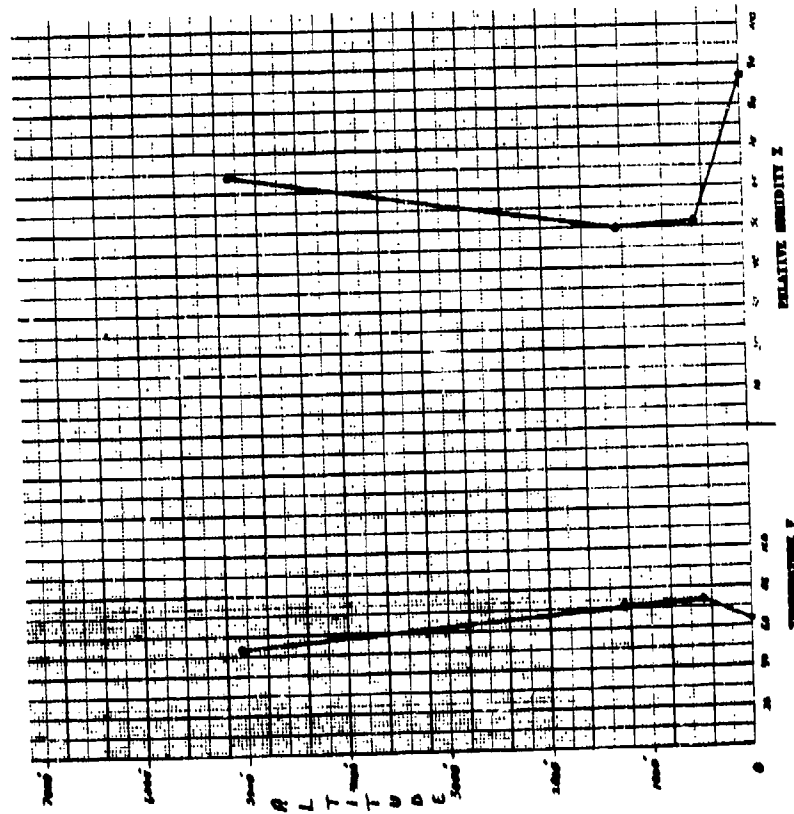
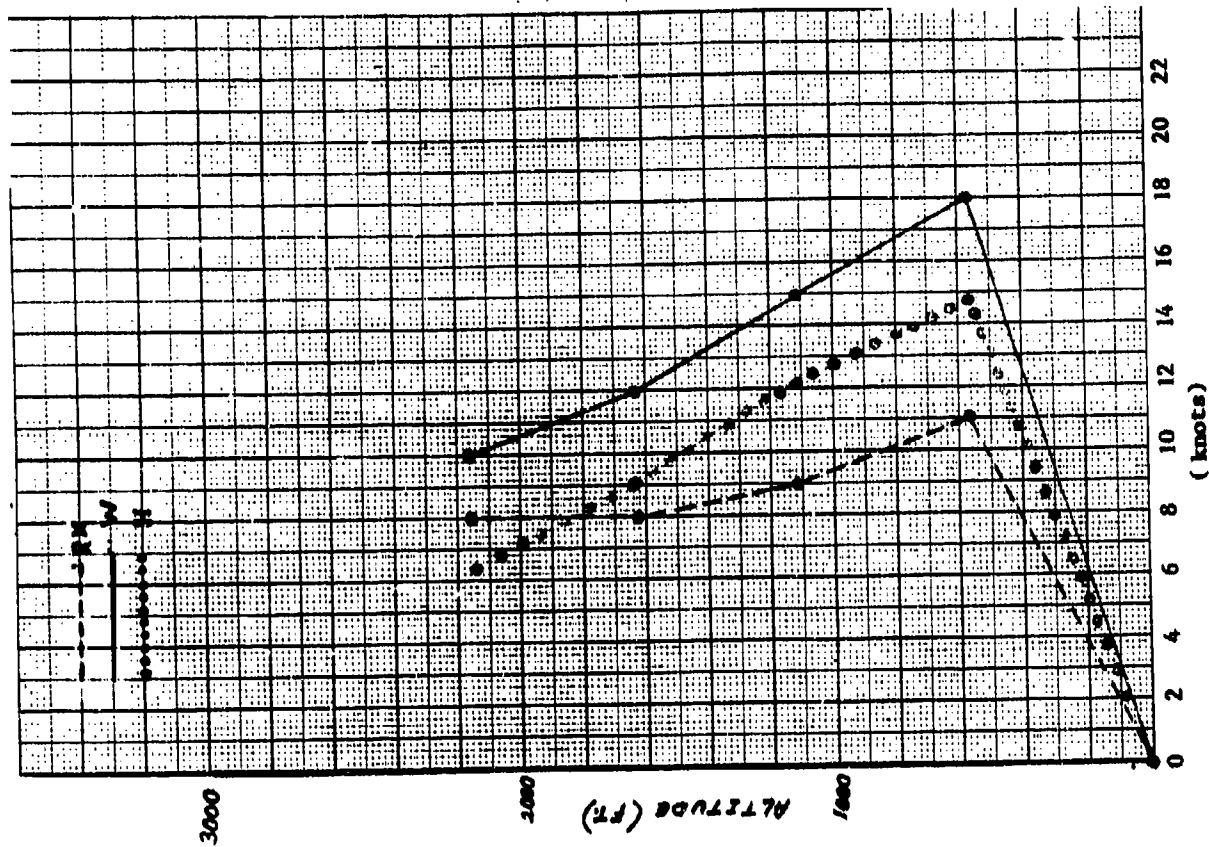


FIGURE E2-6

DATE 4/27/43
 ASC. NO. 13
 LAUNCH TIME 7:55 PM

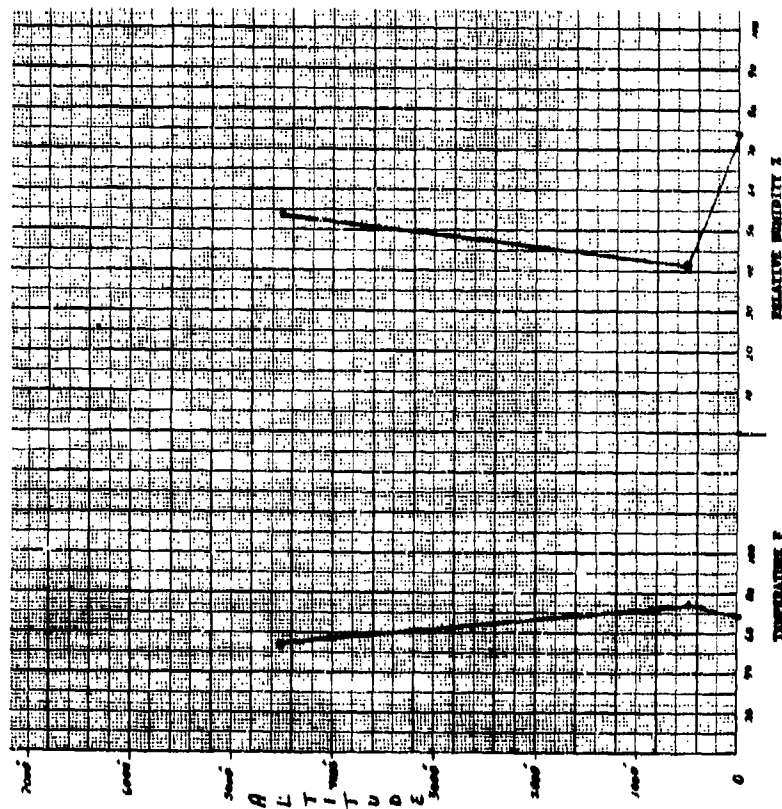
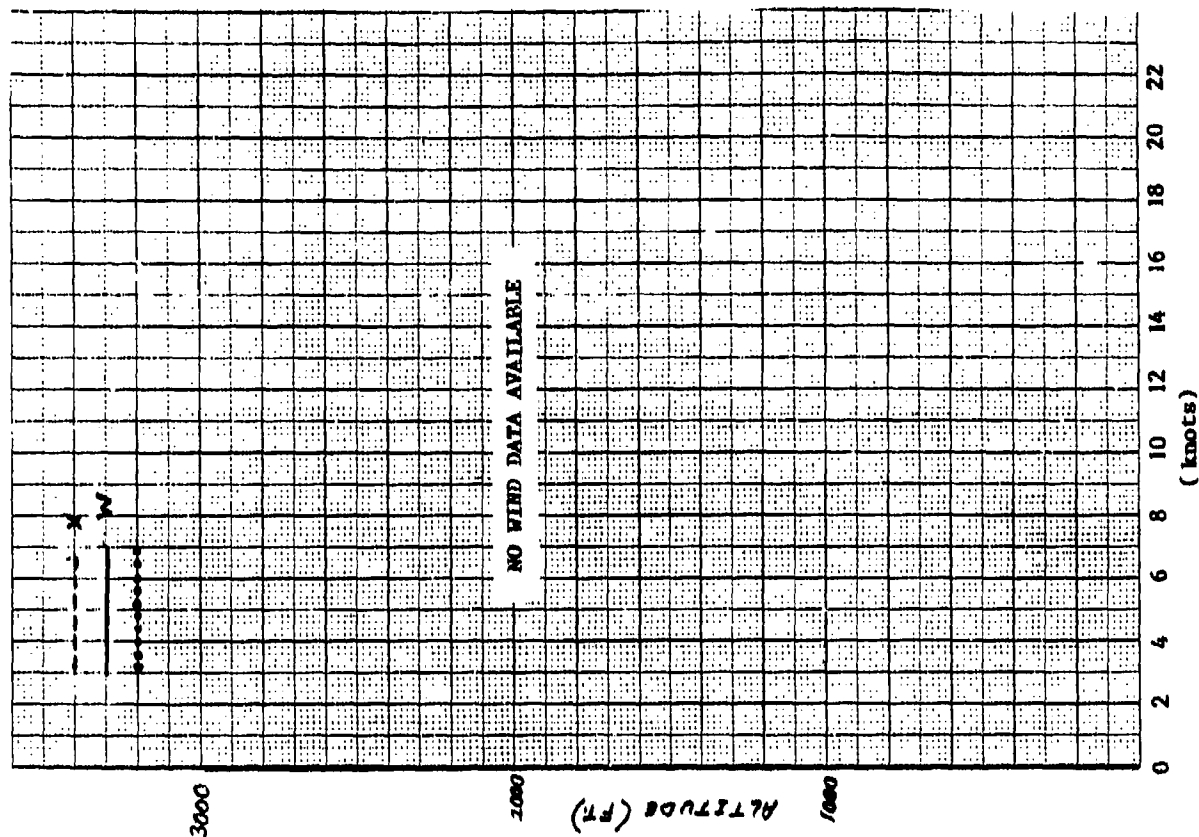


FIGURE E2-7

DATE 6/23/80

ASS. NO. 14

Launch Time 9:00:00

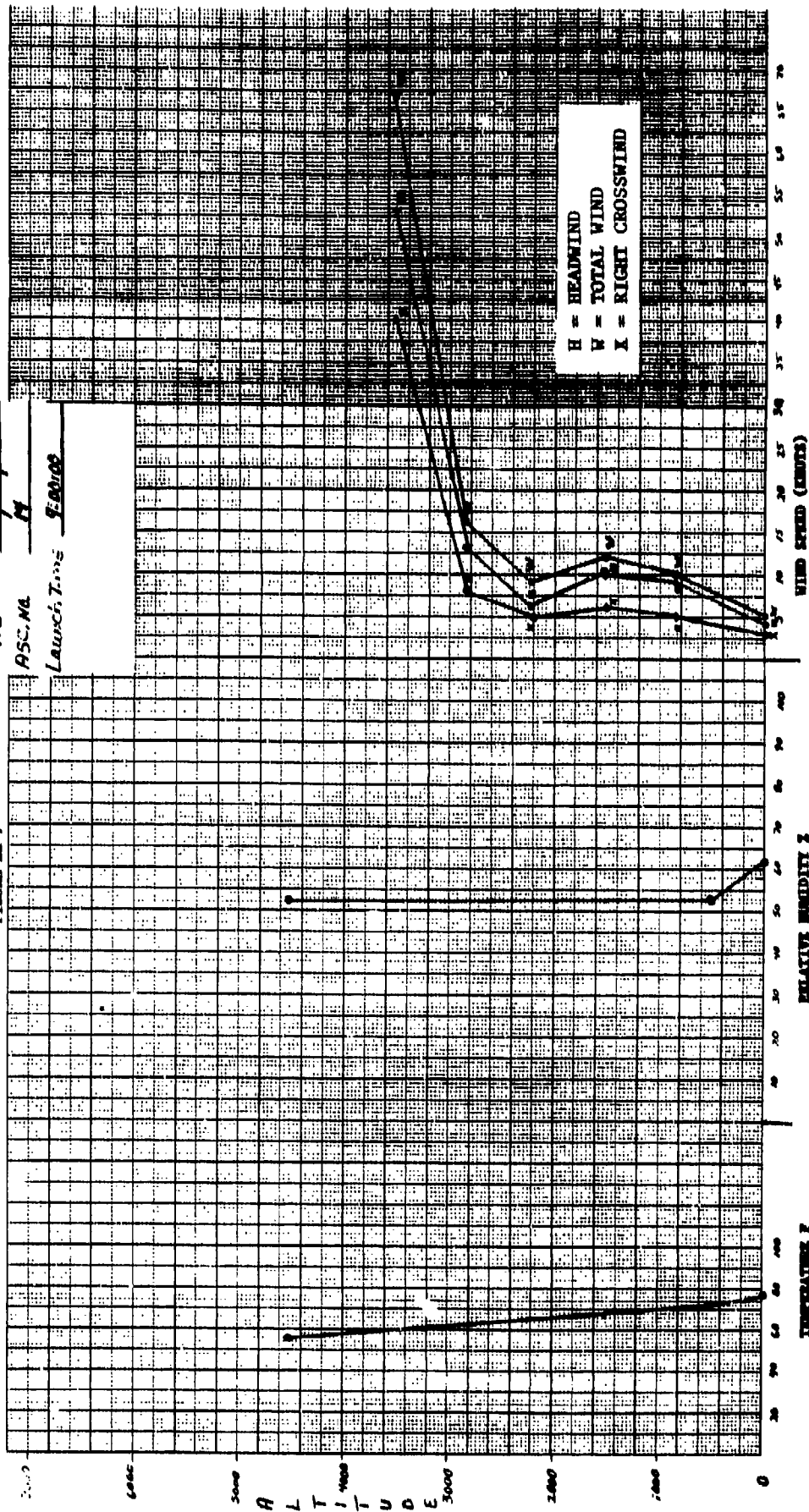
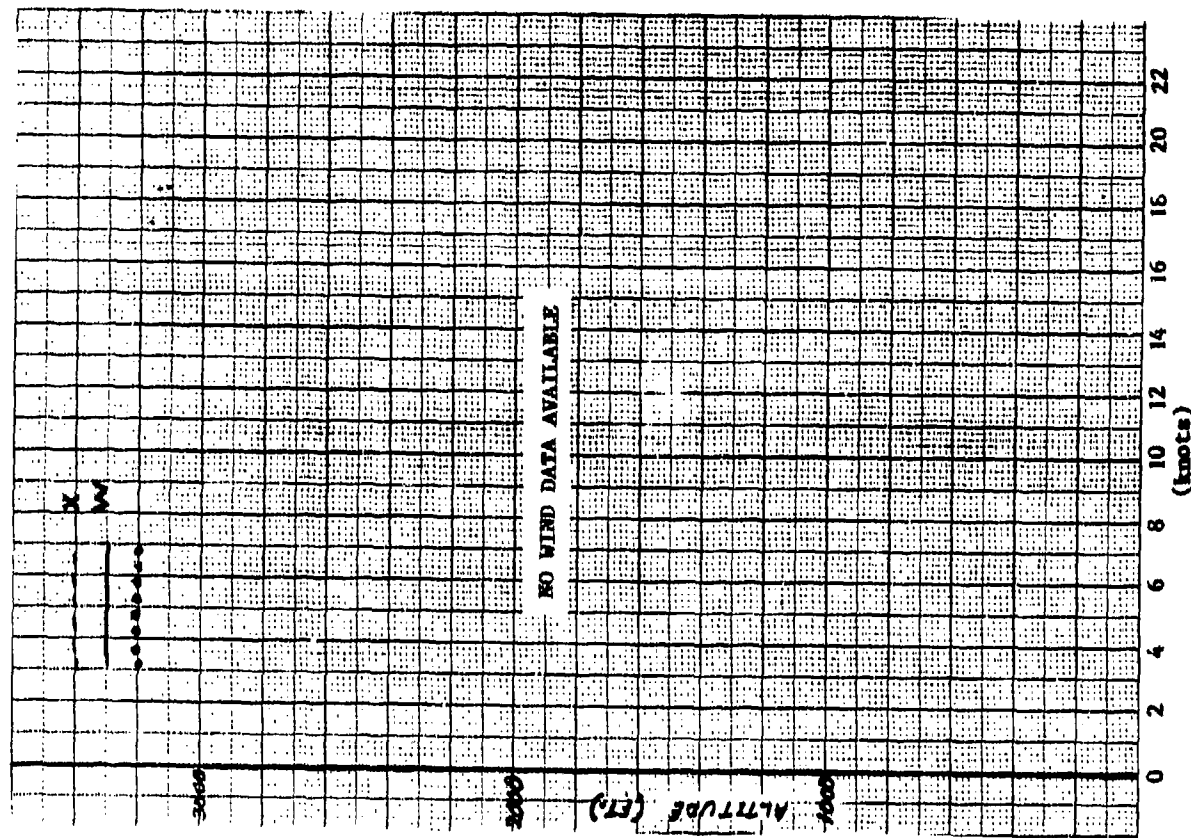
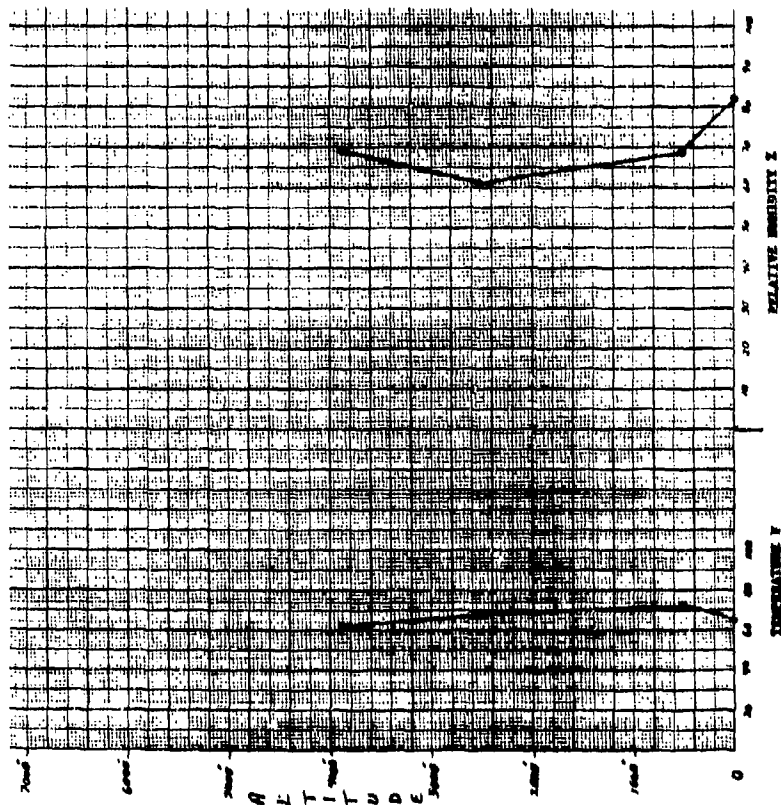


FIGURE E3-1

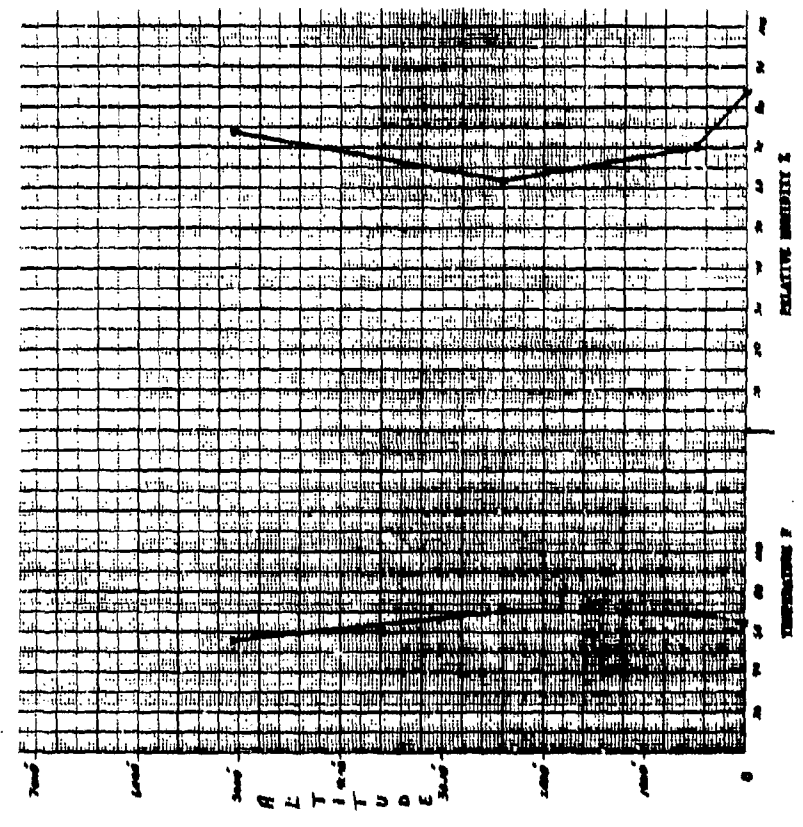
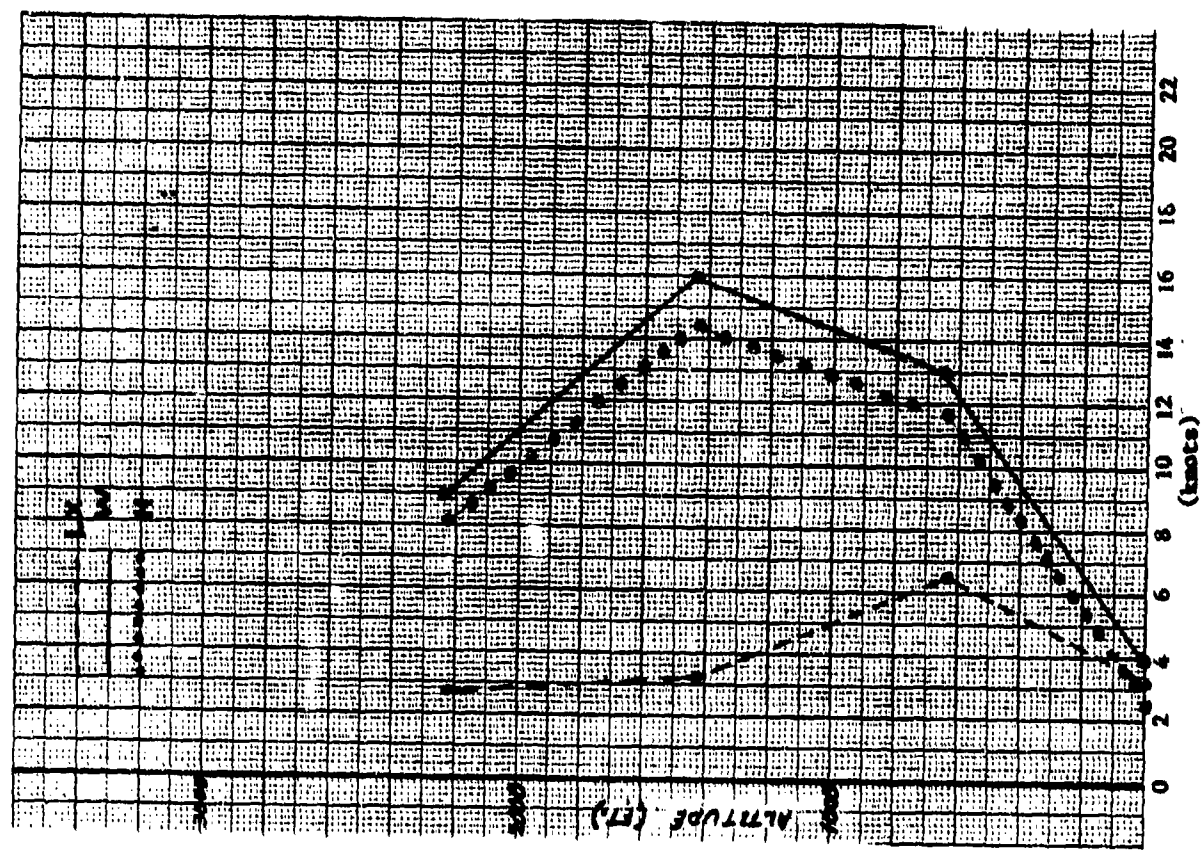
DATE 6-2-86
 ASC. NO. 15
 LAUNCH TIME 5:0 PM



NO WIND DATA AVAILABLE

DATE 6/24/99
 ASC. NO. 16
 LAUNCH TIME 5:30 AM

FIGURE E3-2



DATE 6/21/70
 ASC. NO. 17
 LAUNCH TIME 6:10:40

FIGURE E3-3

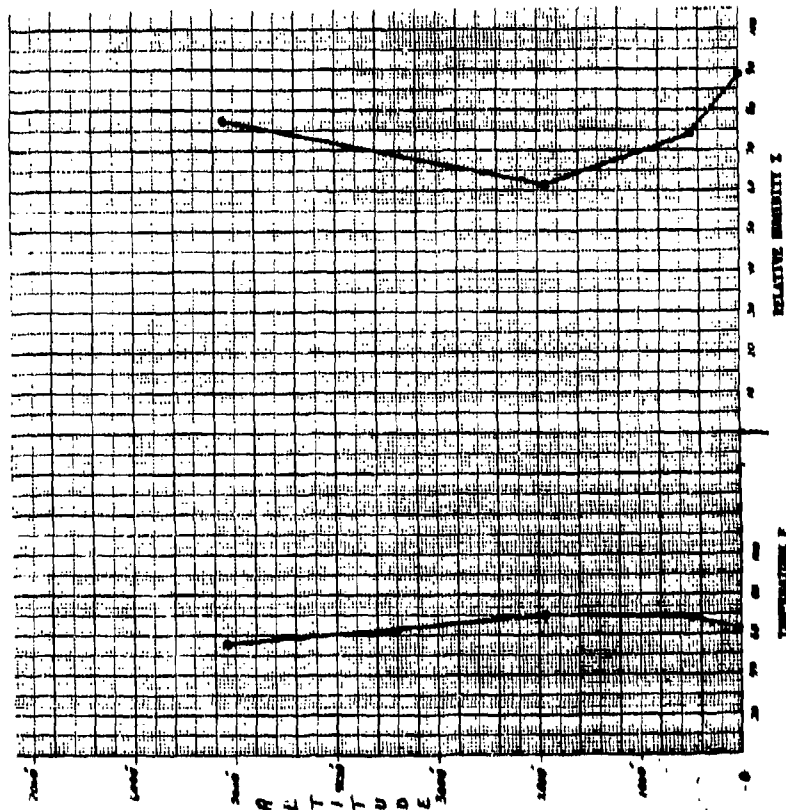
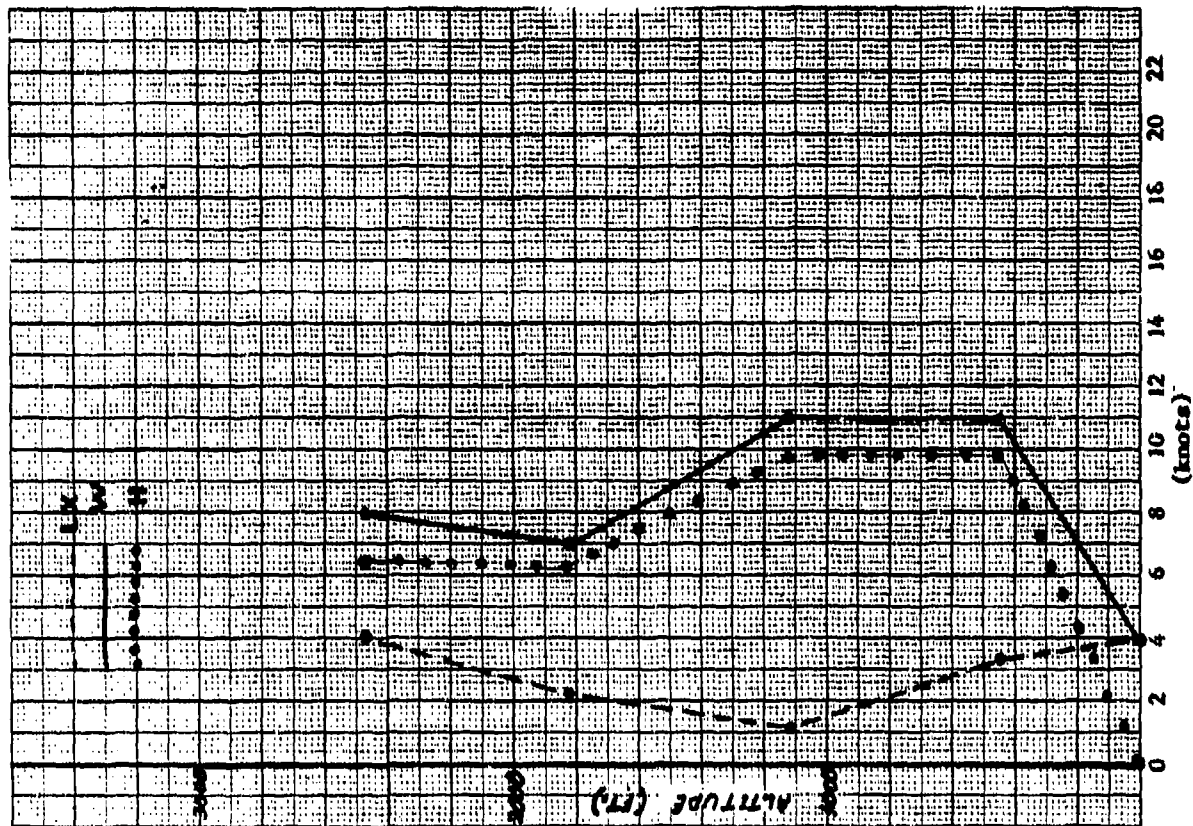
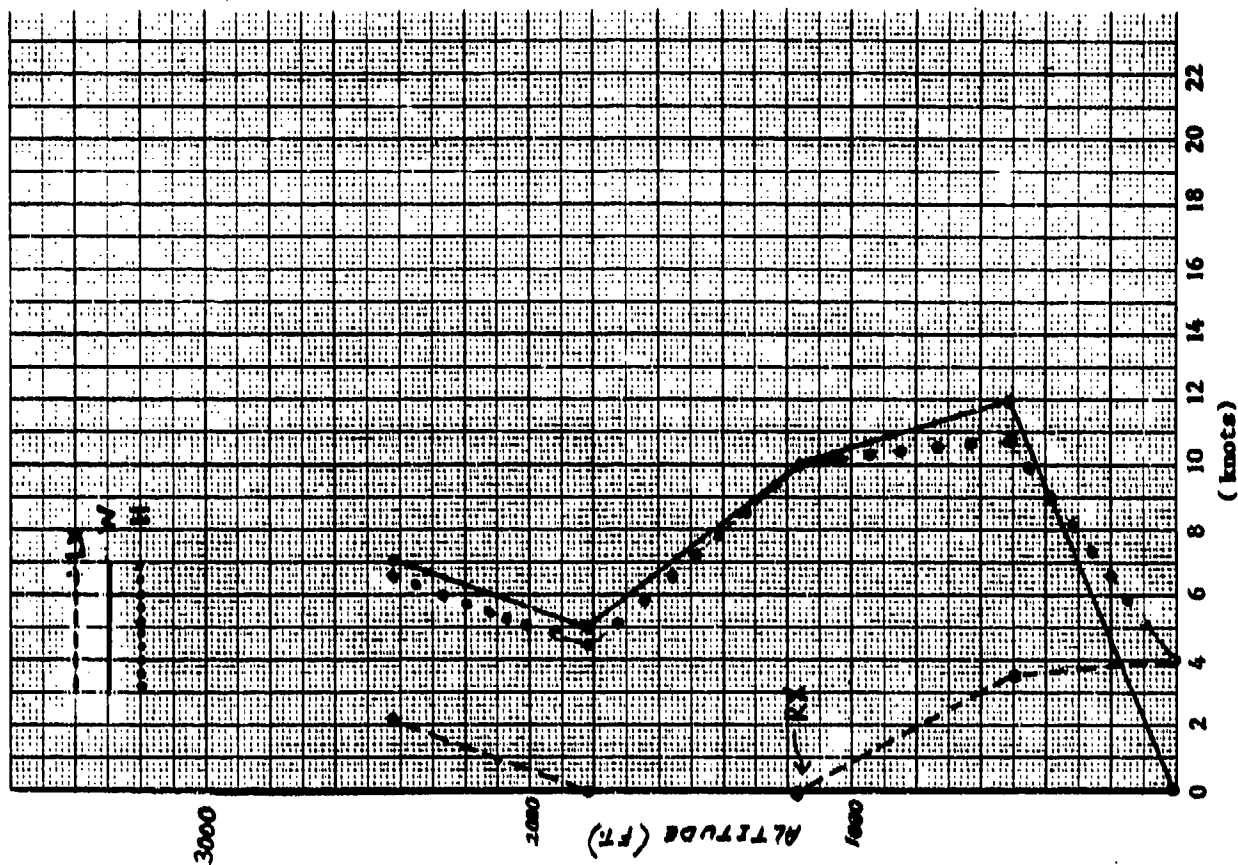
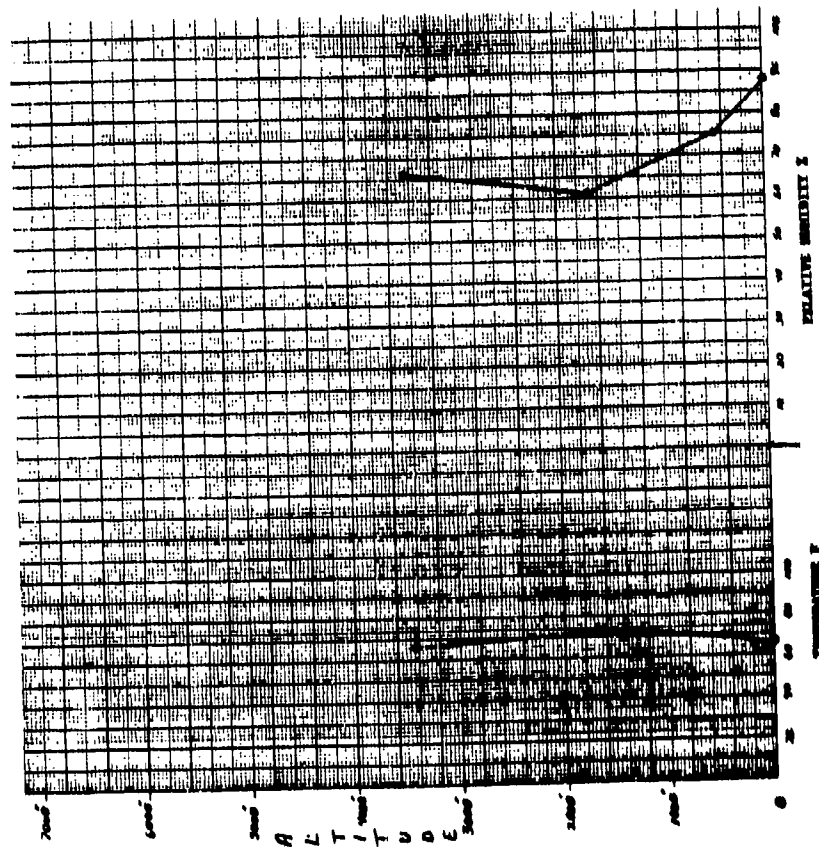


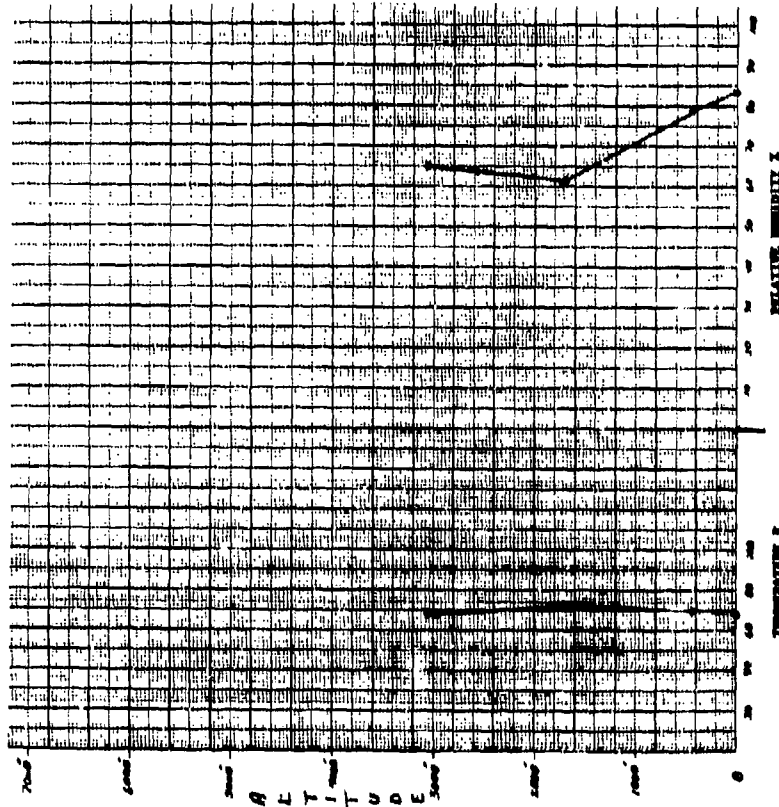
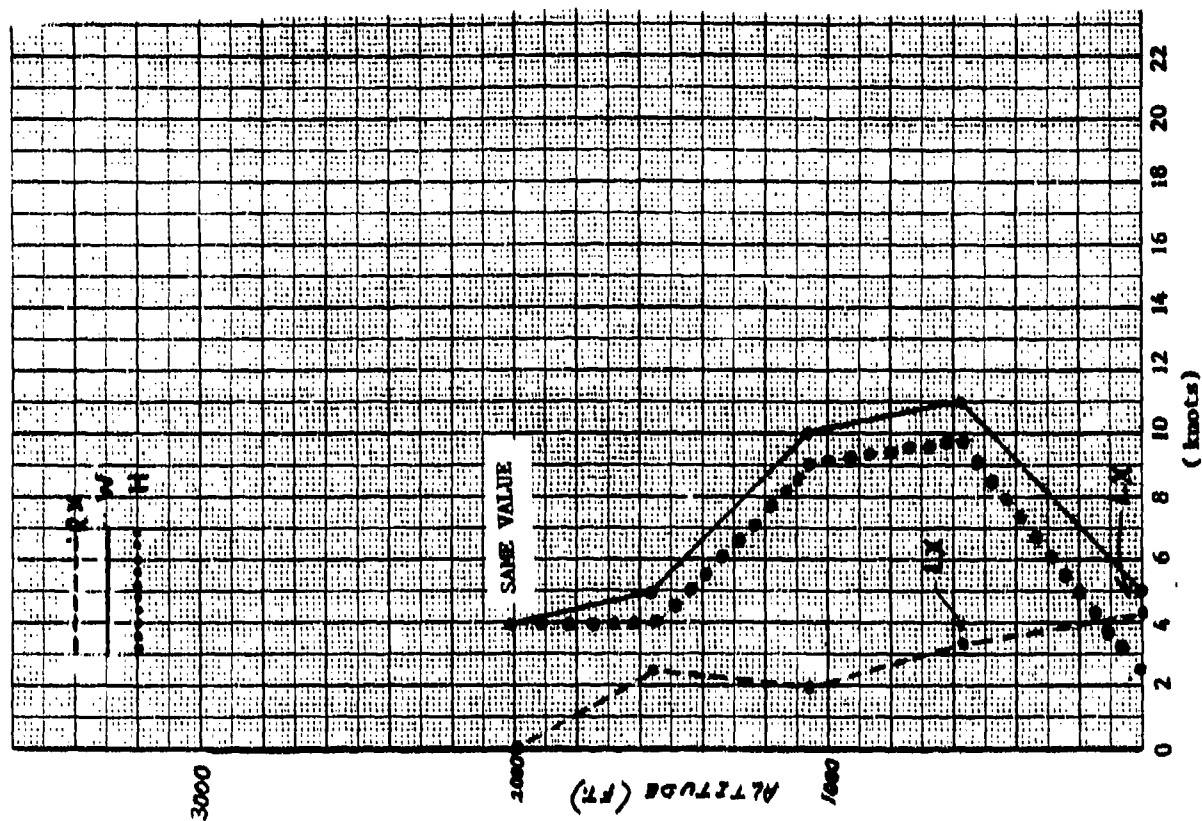
FIGURE E3-4

DATE 6/24/20
 ASC. NO. 13
 LAUNCH TIME 6:20 AM



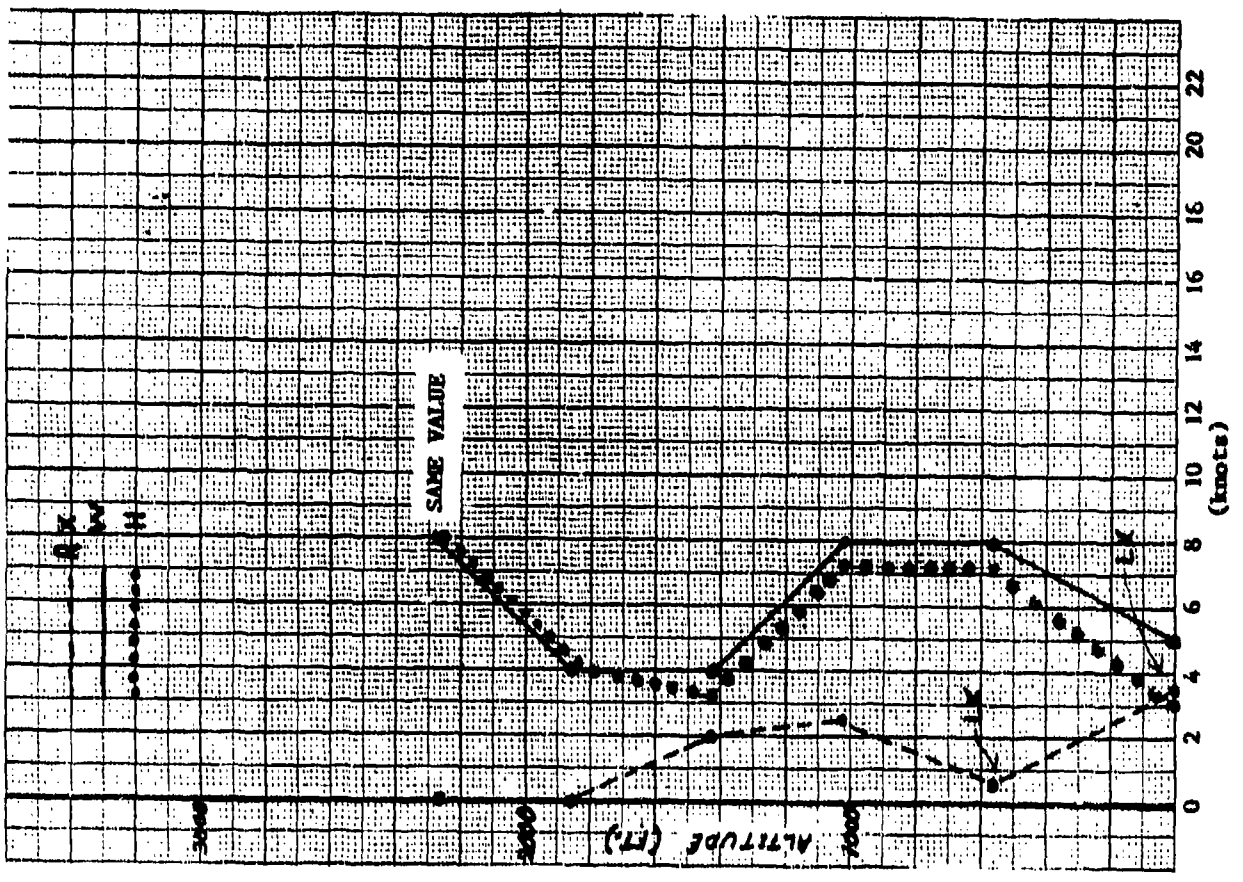
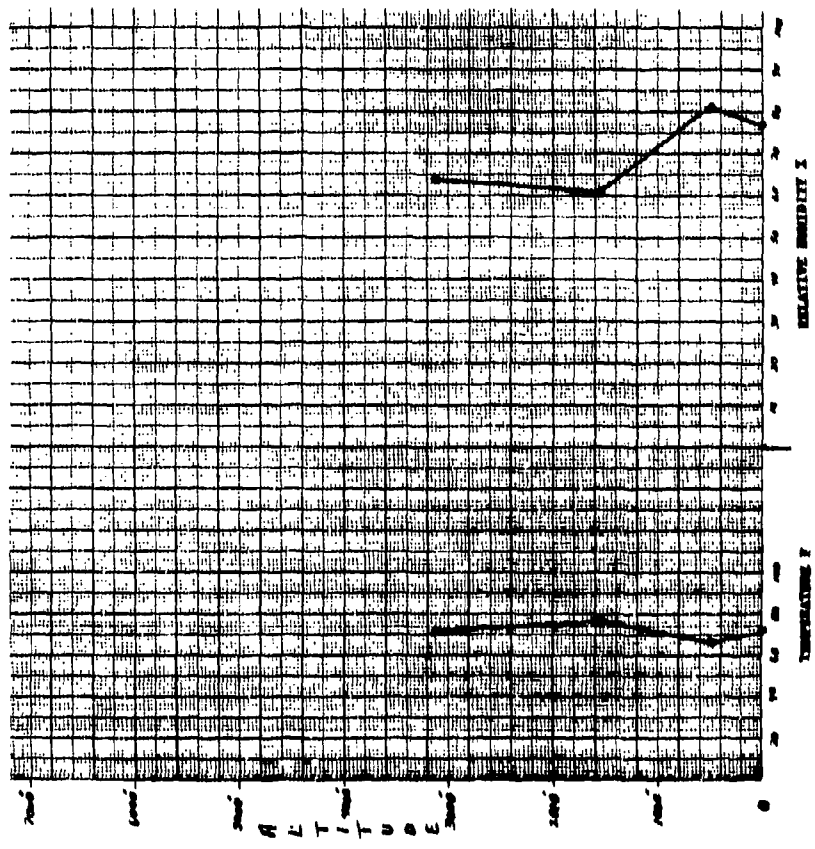
DATE 6/24/80
 ASC. NO. 17
 LAUNCH TIME 7:00 PM

FIGURE E3-5



DATE 6/24/20
 ASC. NO. 20
 LAUNCH TIME 8:00 PM

FIGURE E3-6



DATE 6/20/90
 ASC. NO. 21
 LAUNCH TIME 9:00 AM

FIGURE E3-7

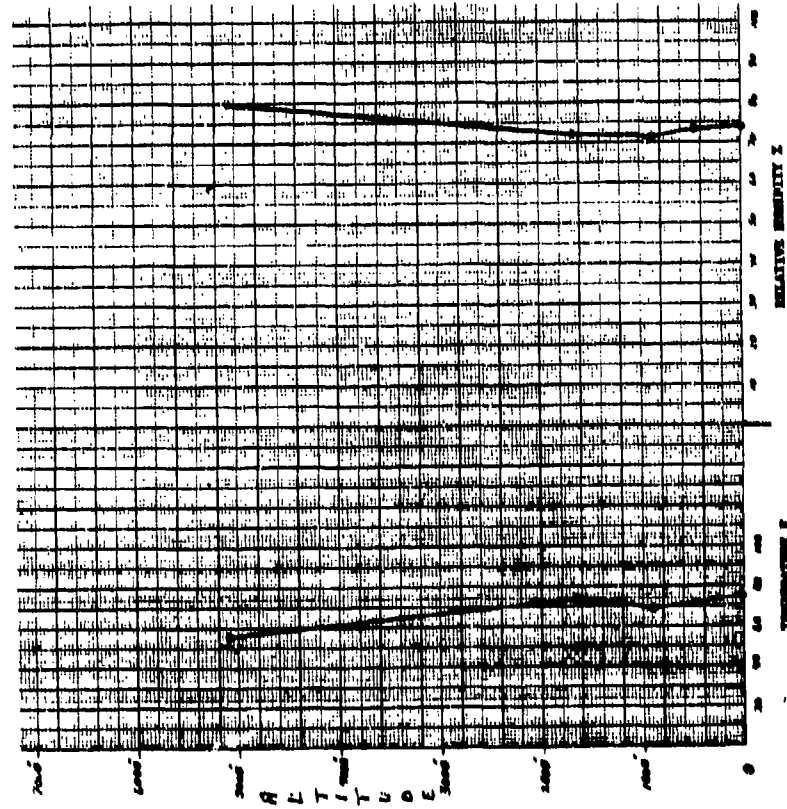
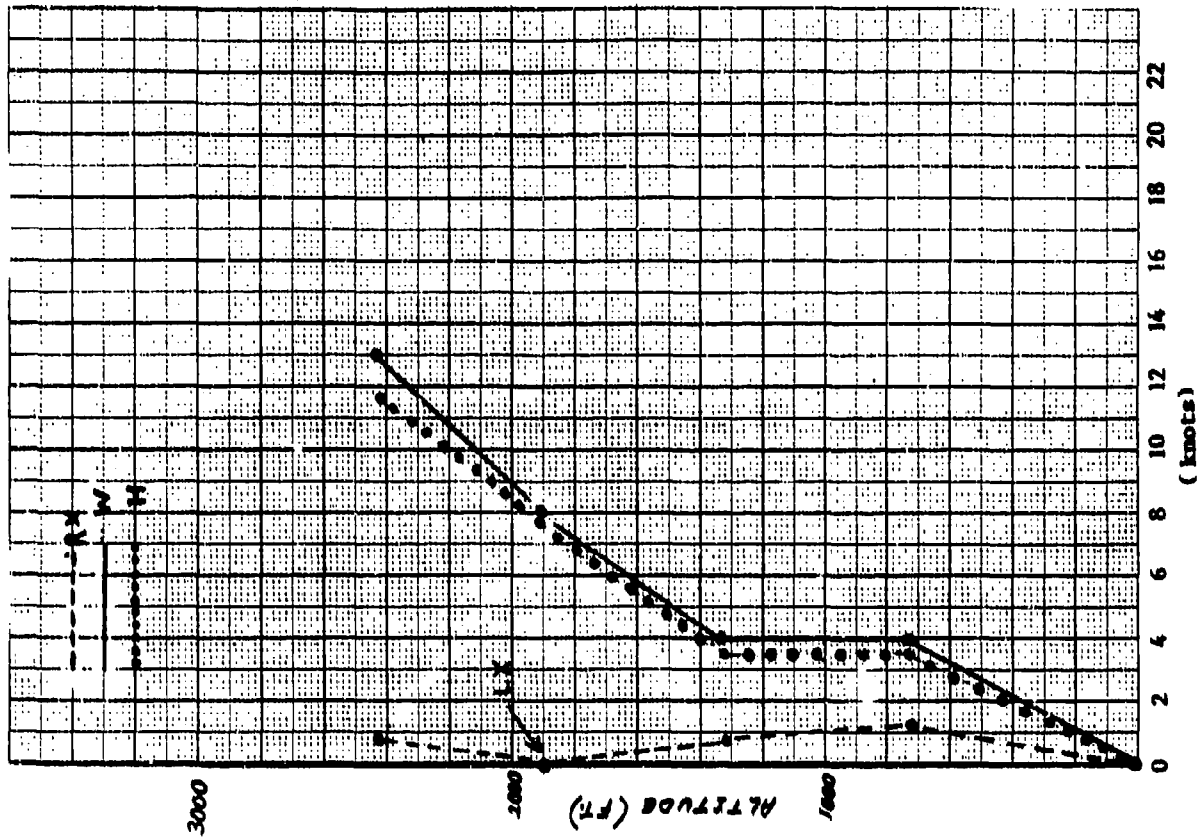


FIGURE E4-1

DATE 6/27/80
 ASC. NO. 2
 LAUNCH TIME 5:40 PM

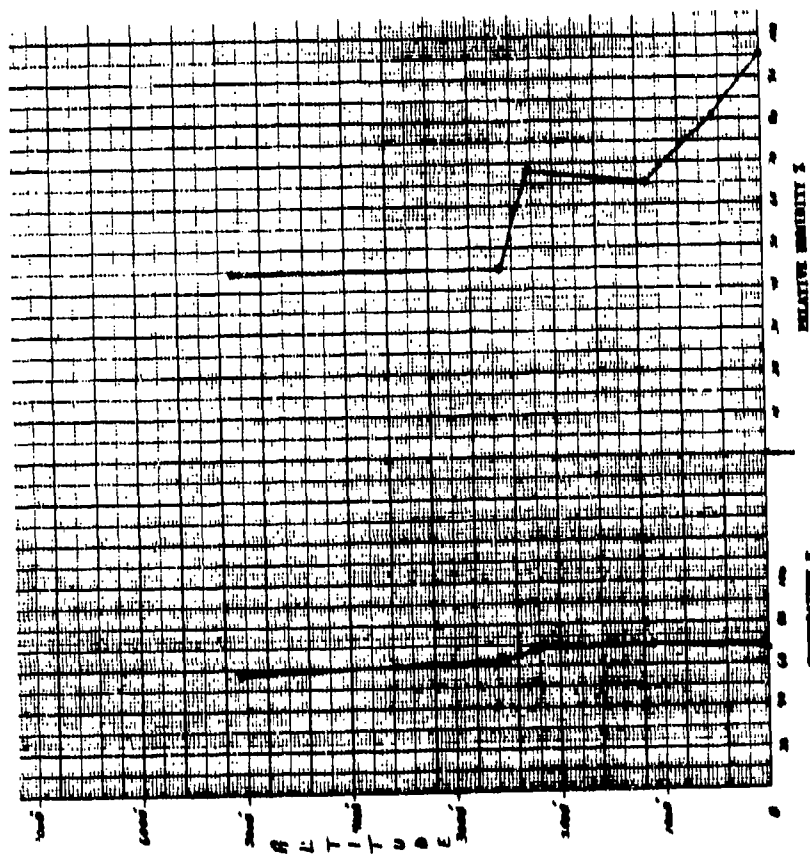
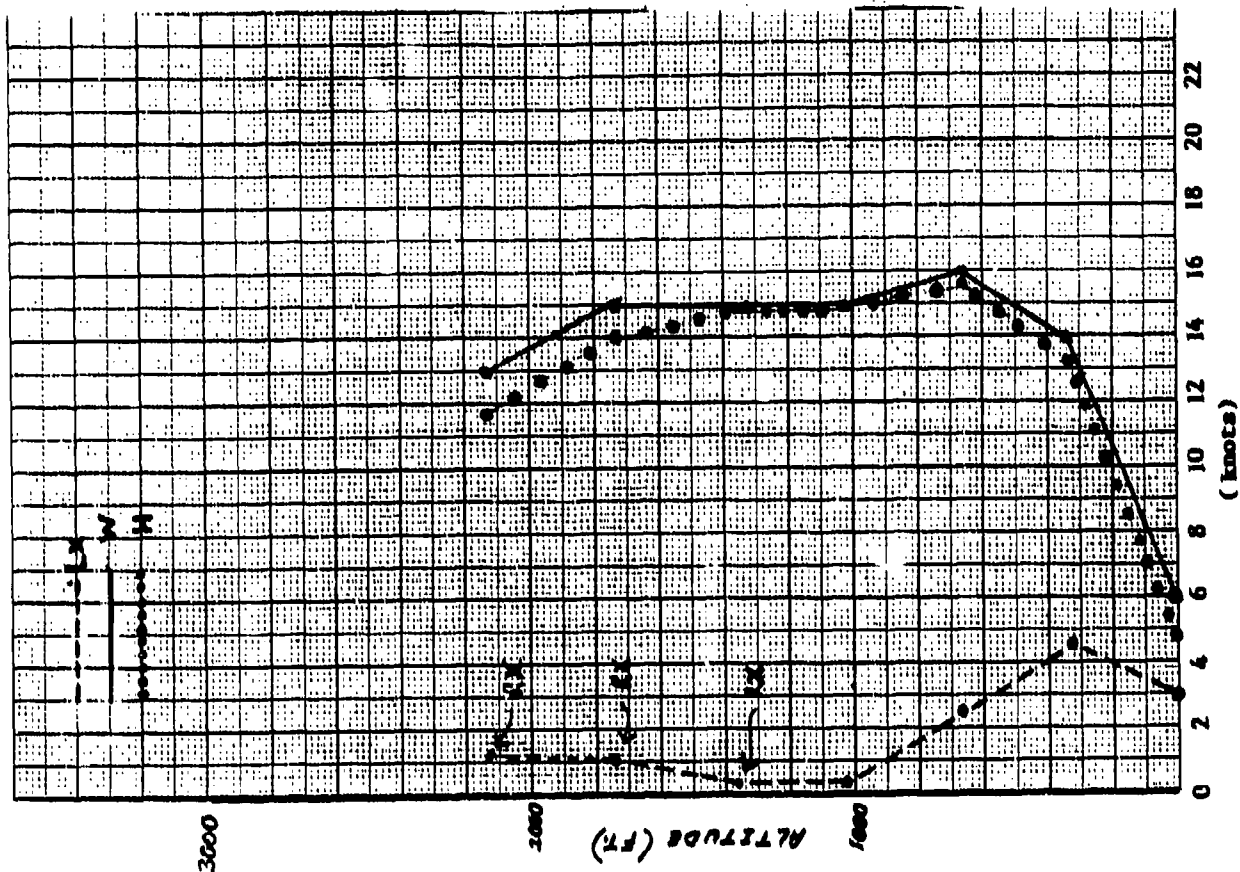
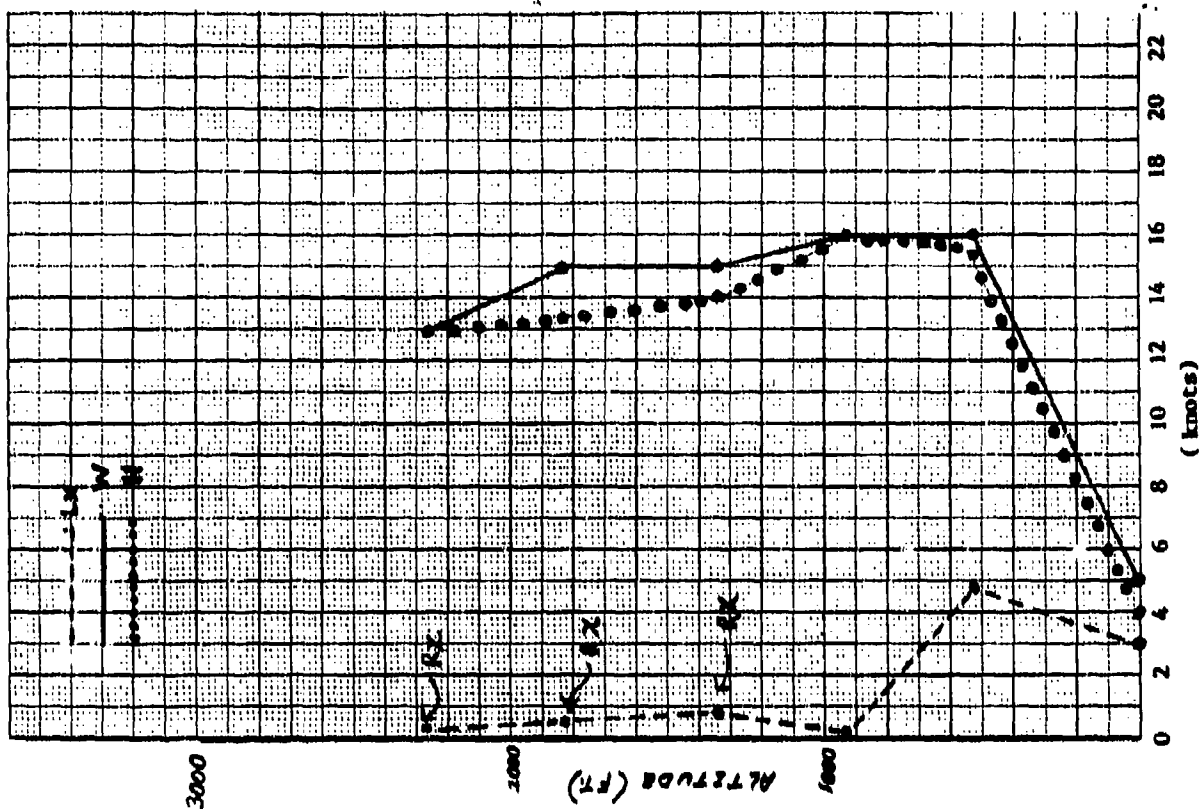
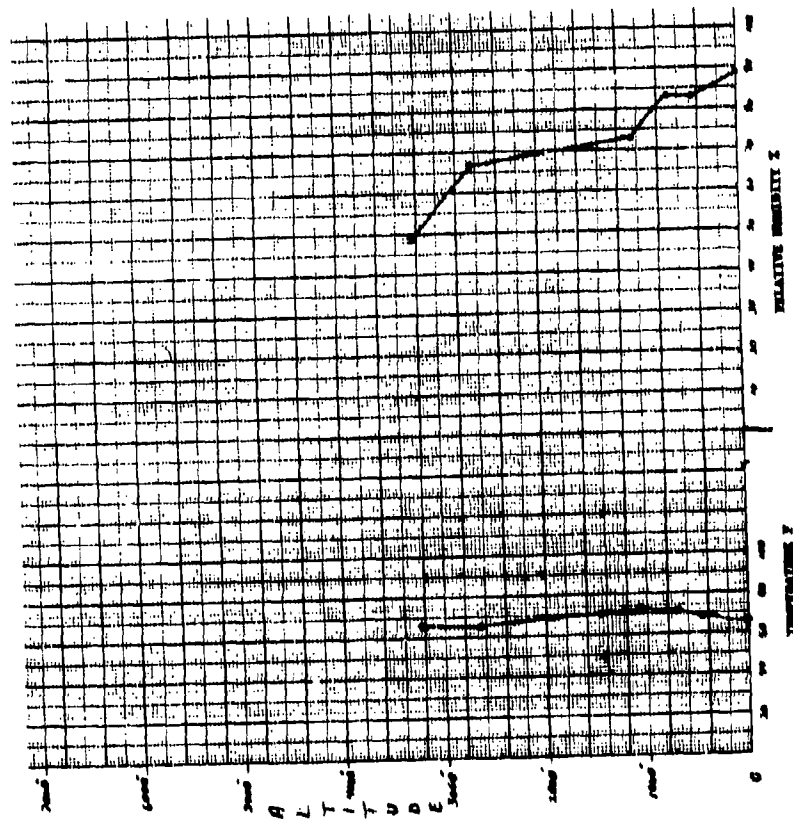


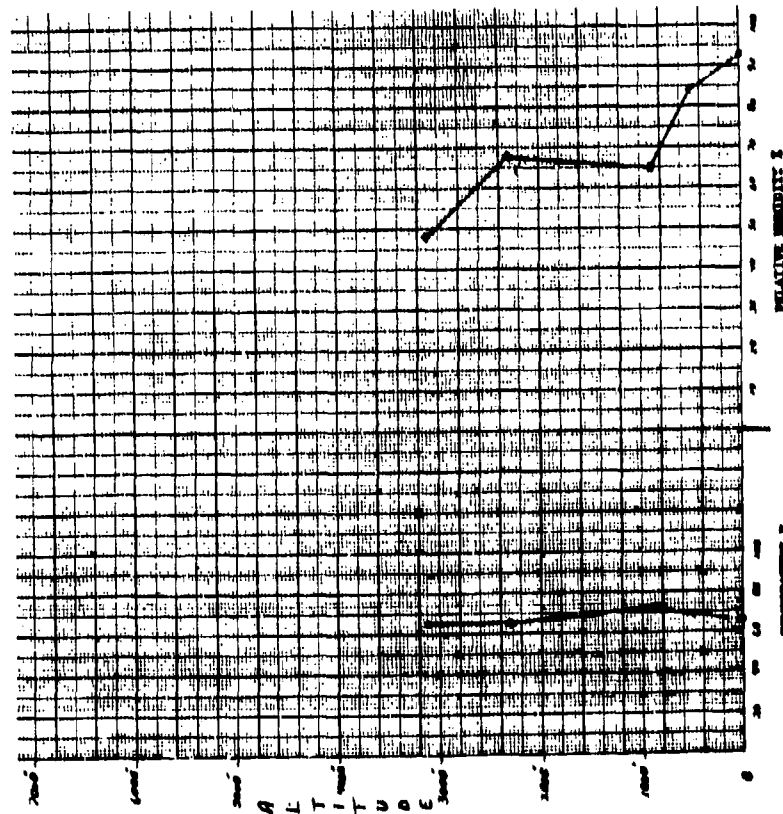
FIGURE E4-2

DATE 6/27/24
 ASC. NO. 23
 LAUNCH TIME 5:00 AM



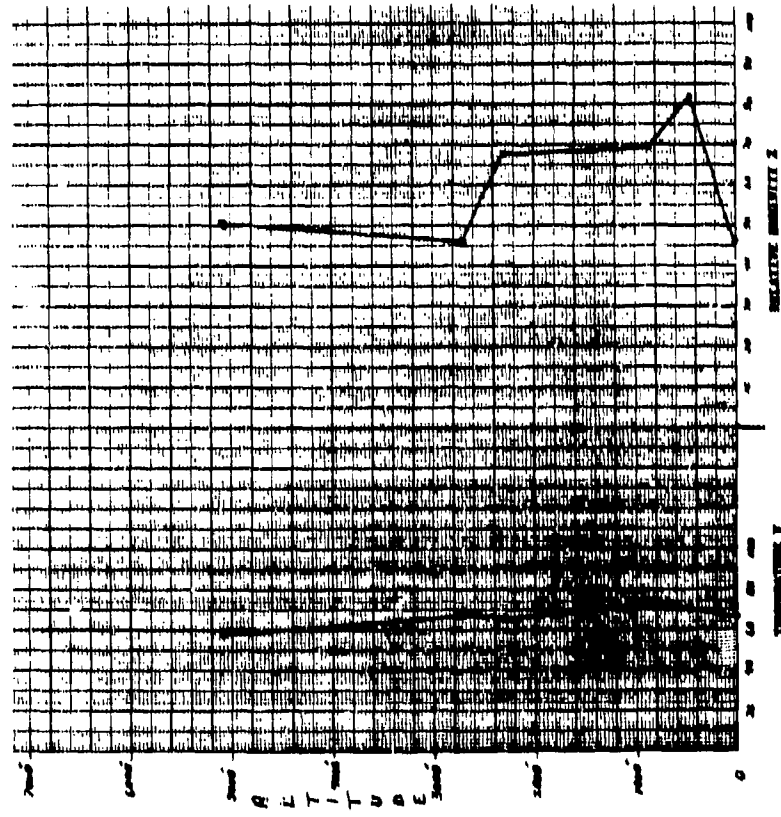
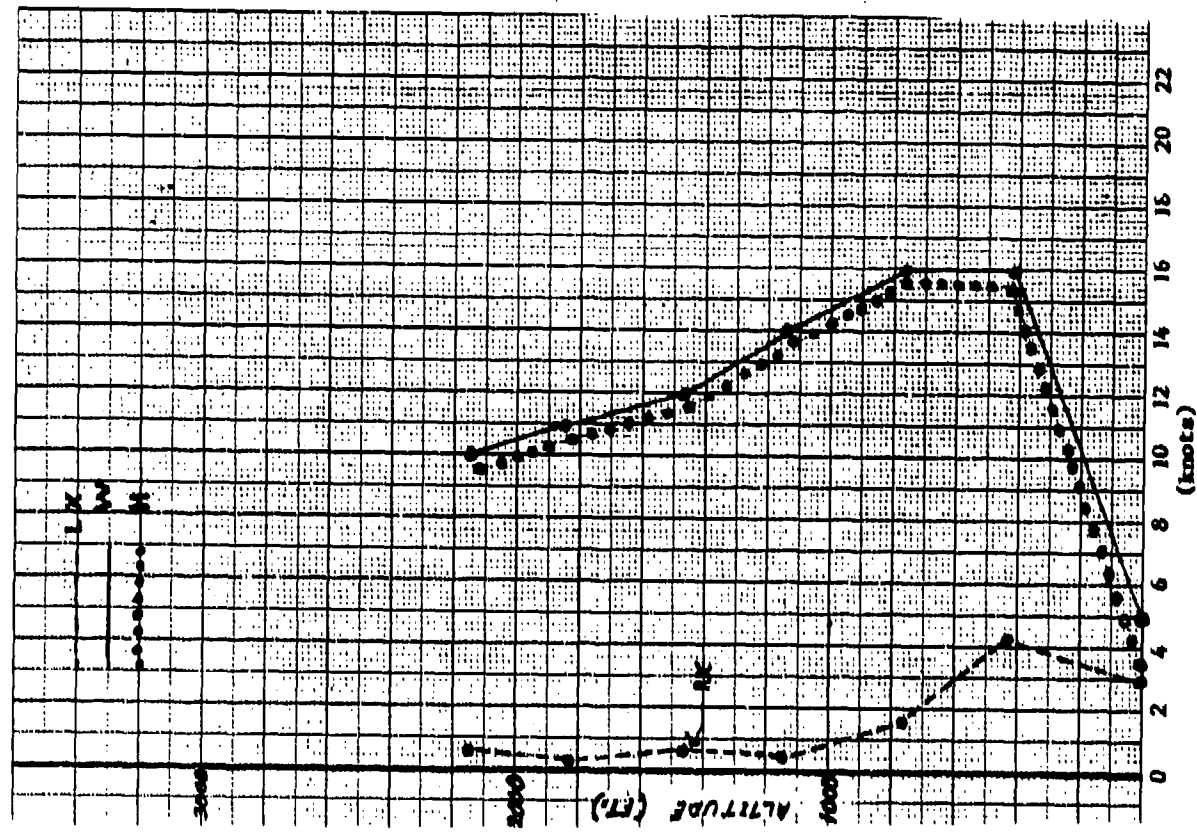
DATE 4/27/59
 ASC. NO. 24
 LAUNCH TIME 6:00 AM

FIGURE E4-3



DATE 6/2-12
 ASC. NO. 25
 LAUNCH TIME 6:50 PM

FIGURE E4-4



DATE 16/2/73
 ASC. NO. 26
 LAUNCH TIME 7:22 P.M.

FIGURE E4-5

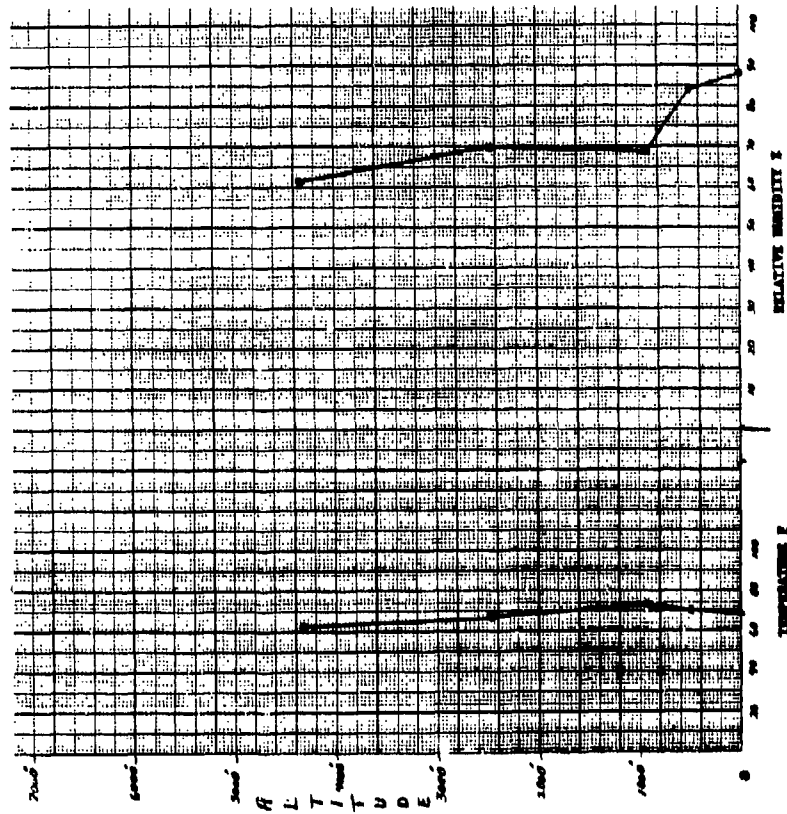
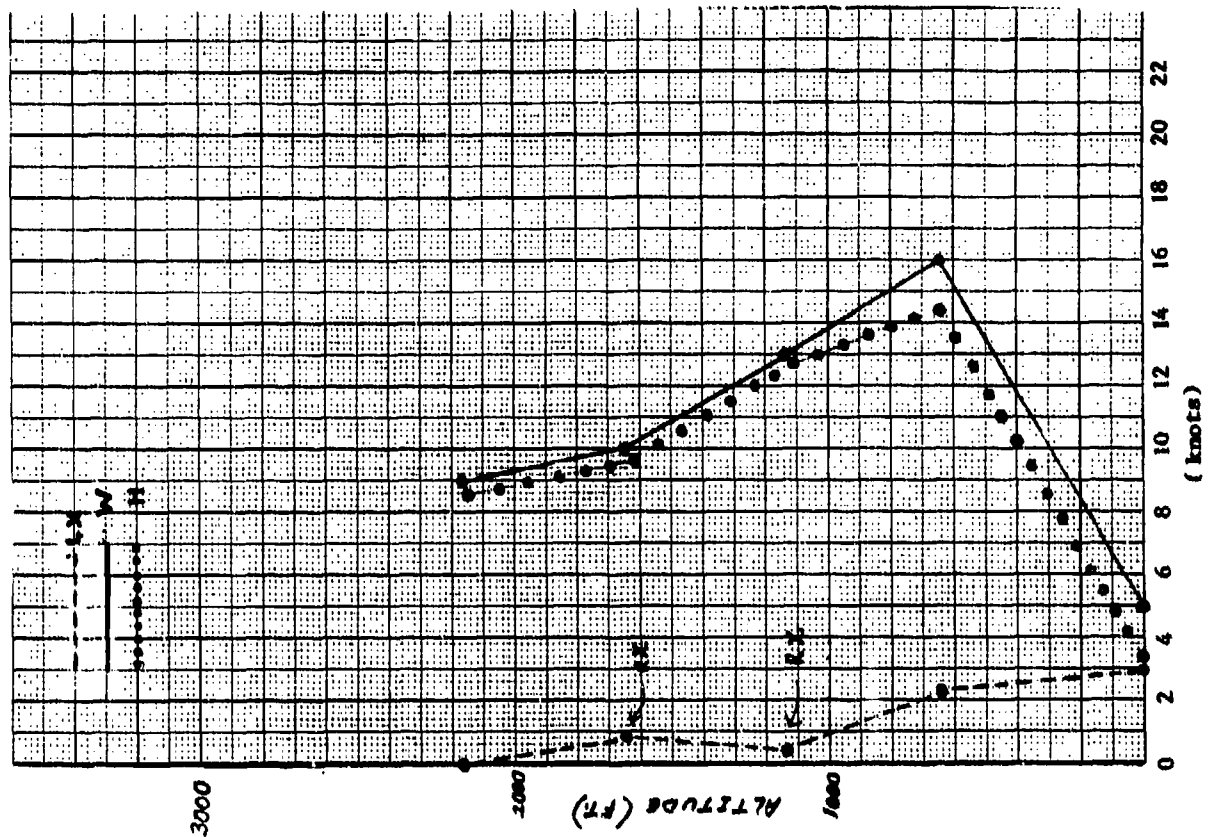
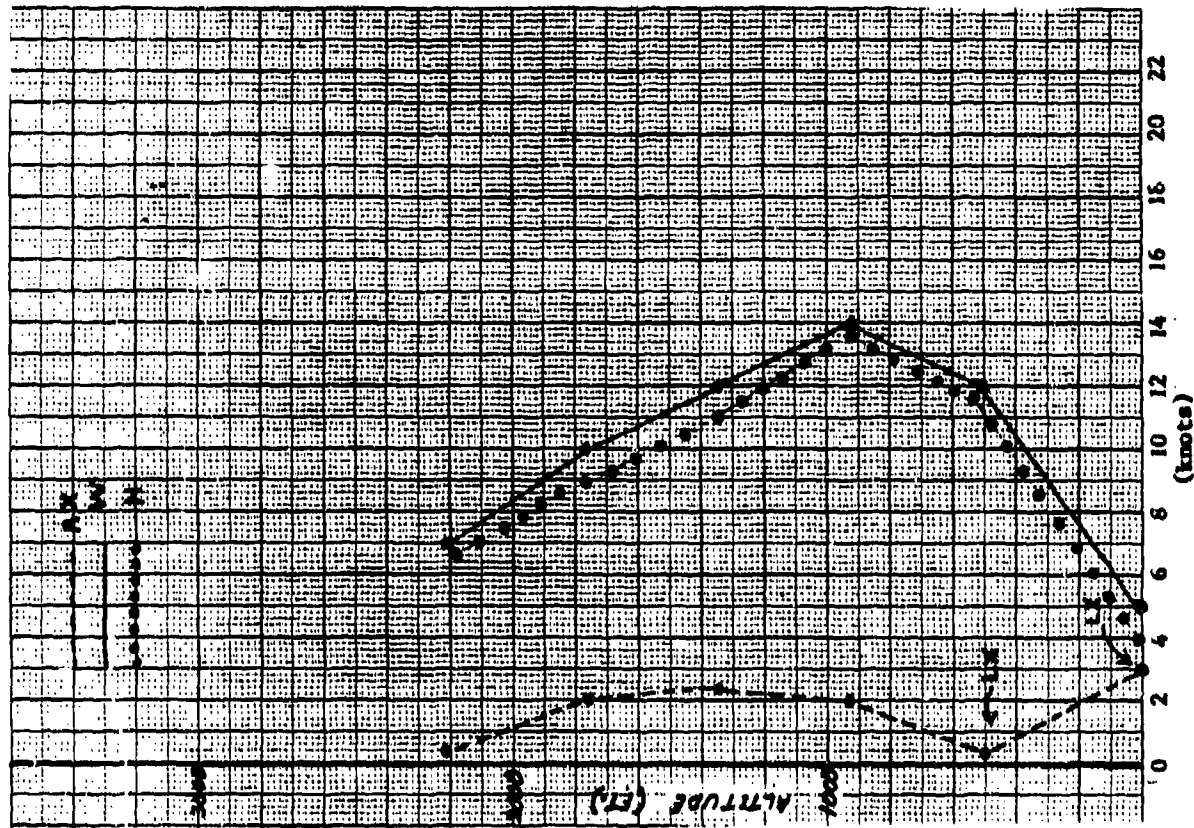
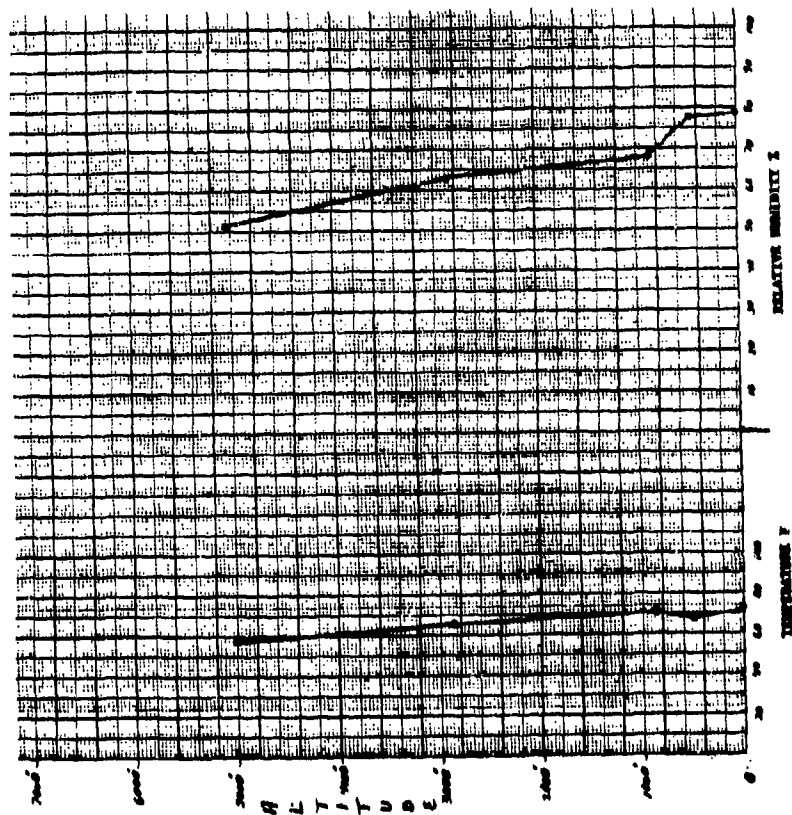


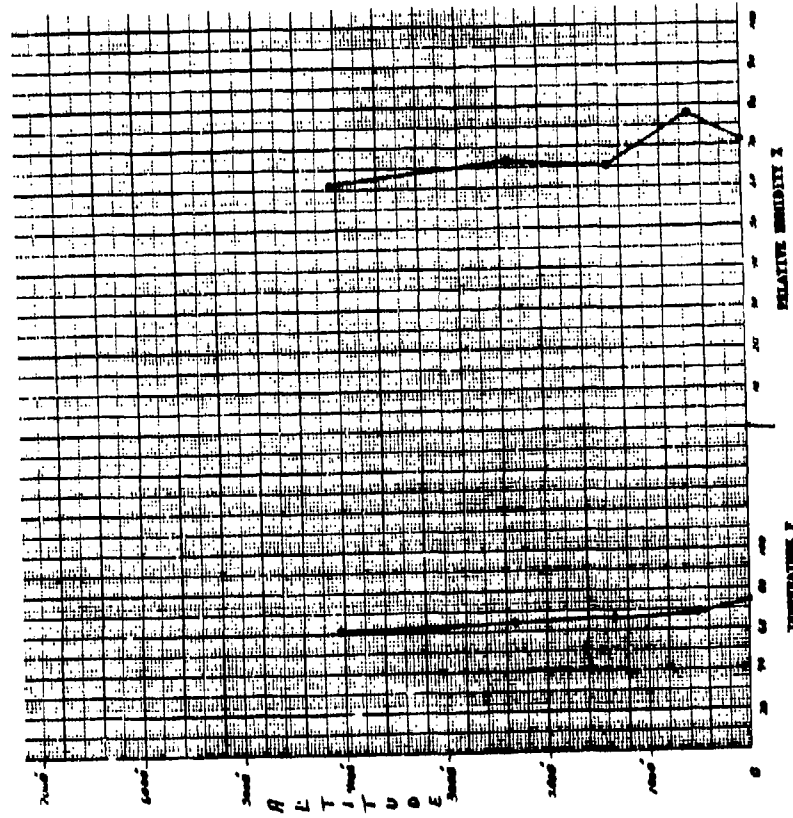
FIGURE E4-6

DATE 10-27-82
 ASC. NO. 27
 LAUNCH TIME 8:00 AM



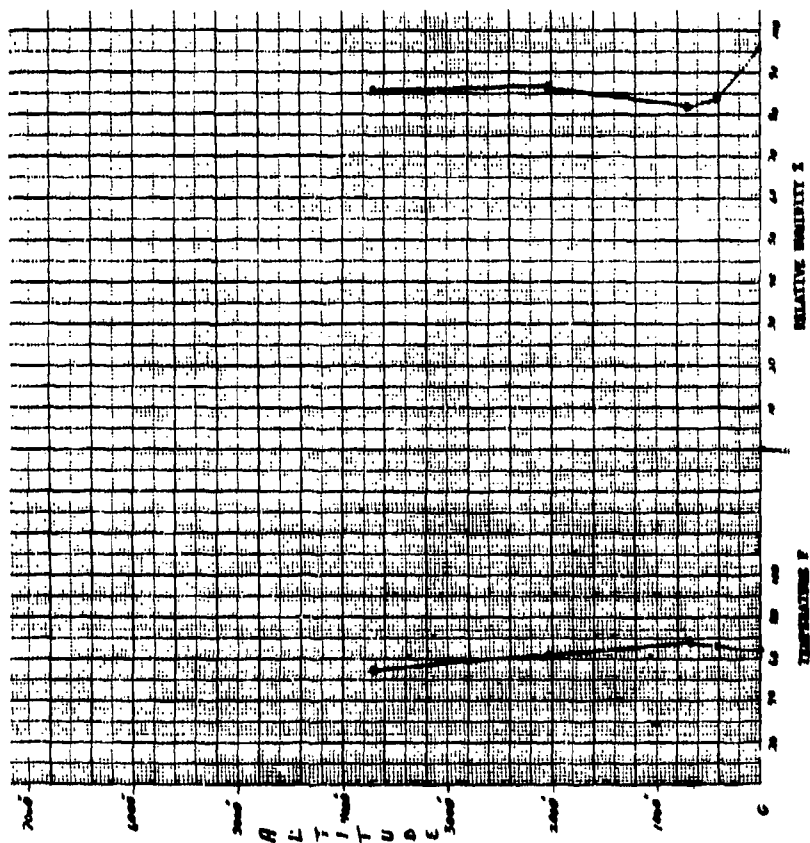
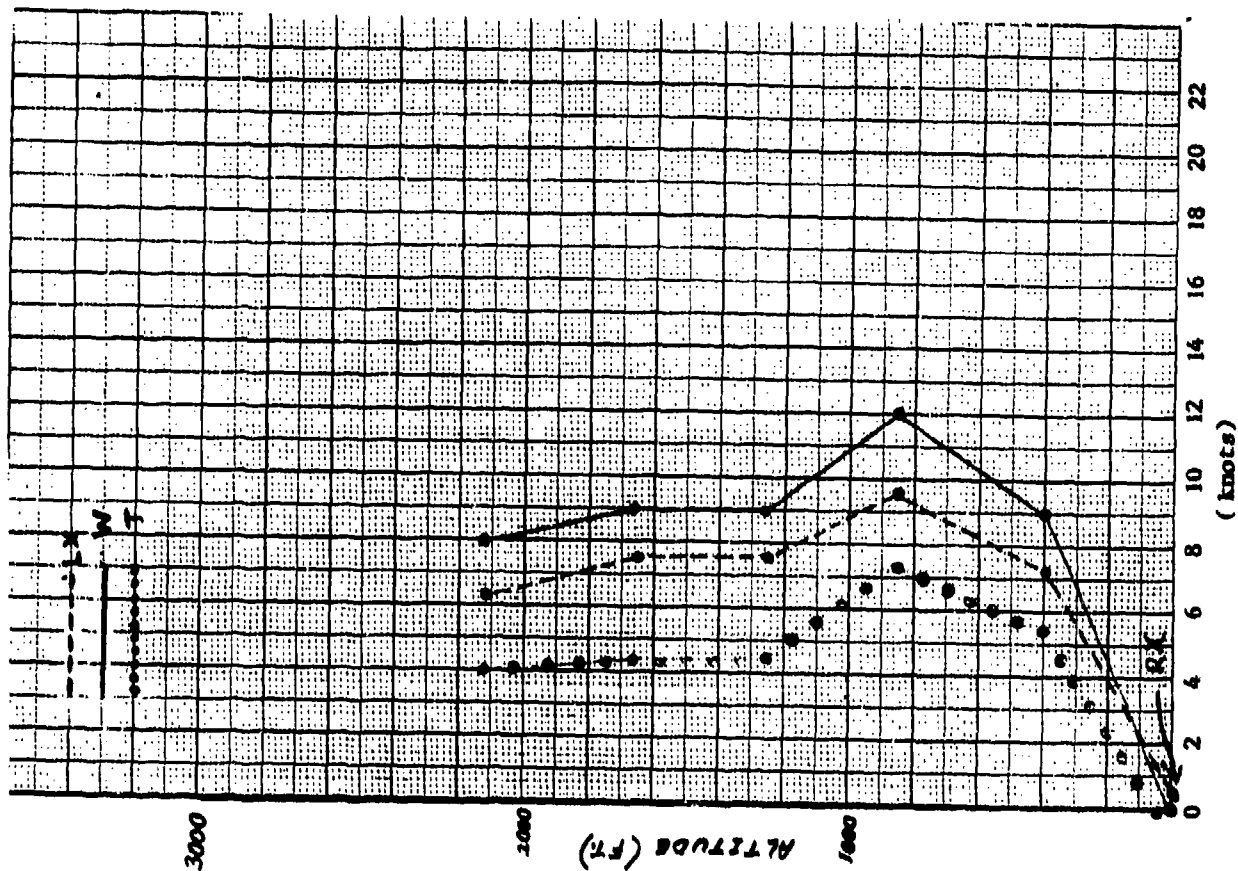
DATE 6/23/80
 ASC. NO. 28
 LAUNCH TIME 9.00 AM

FIGURE BA-7



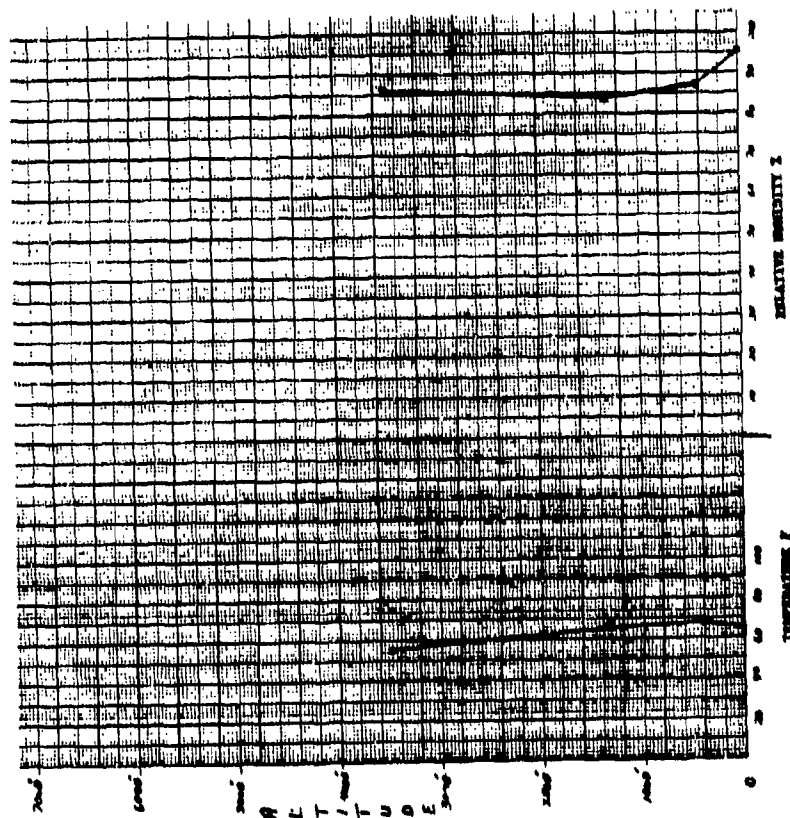
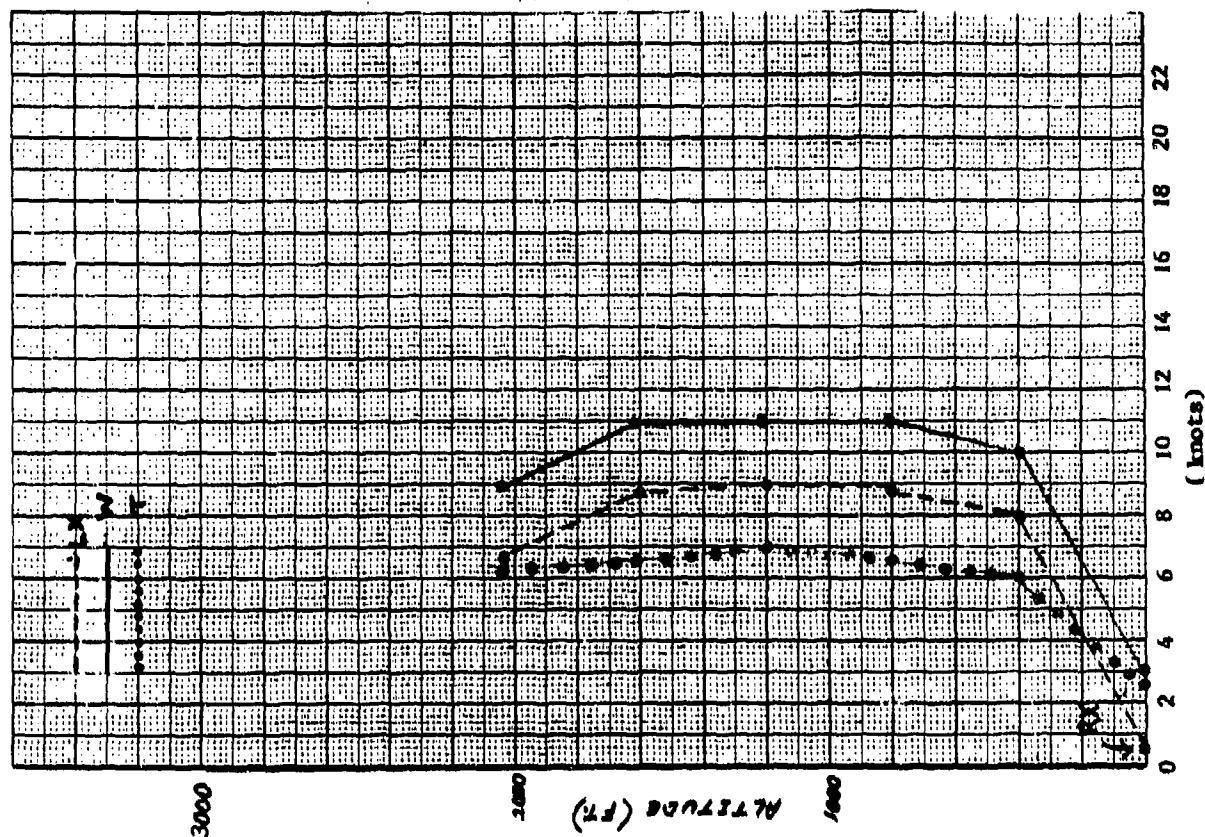
DATE 4/26/92
 ASC. NO. 27
 LAUNCH TIME 5:07 AM

FIGURE E5-1



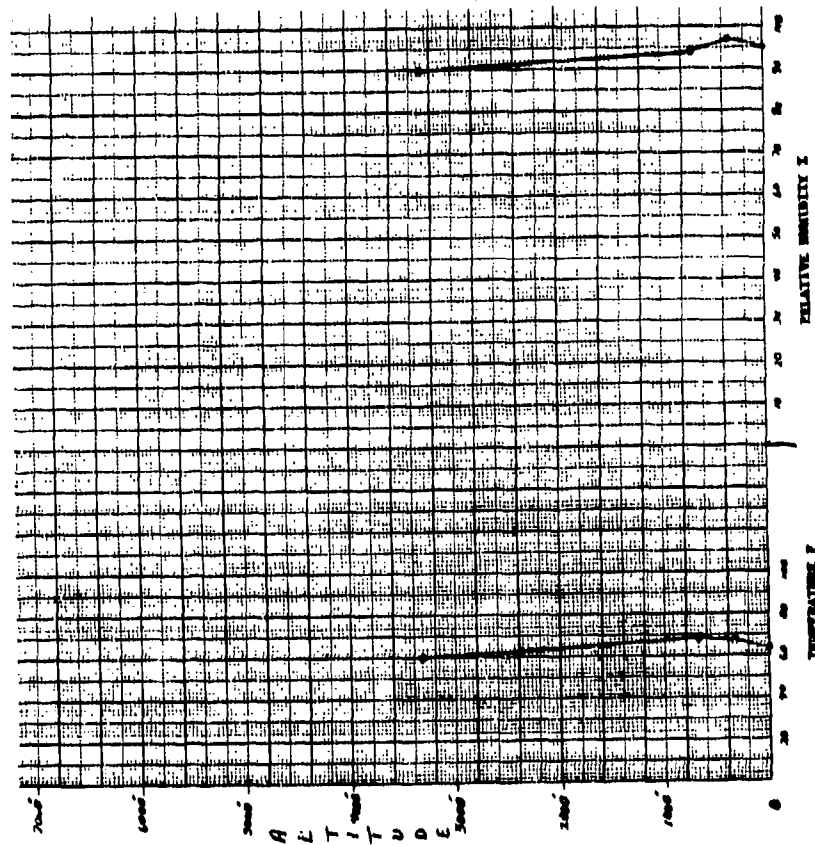
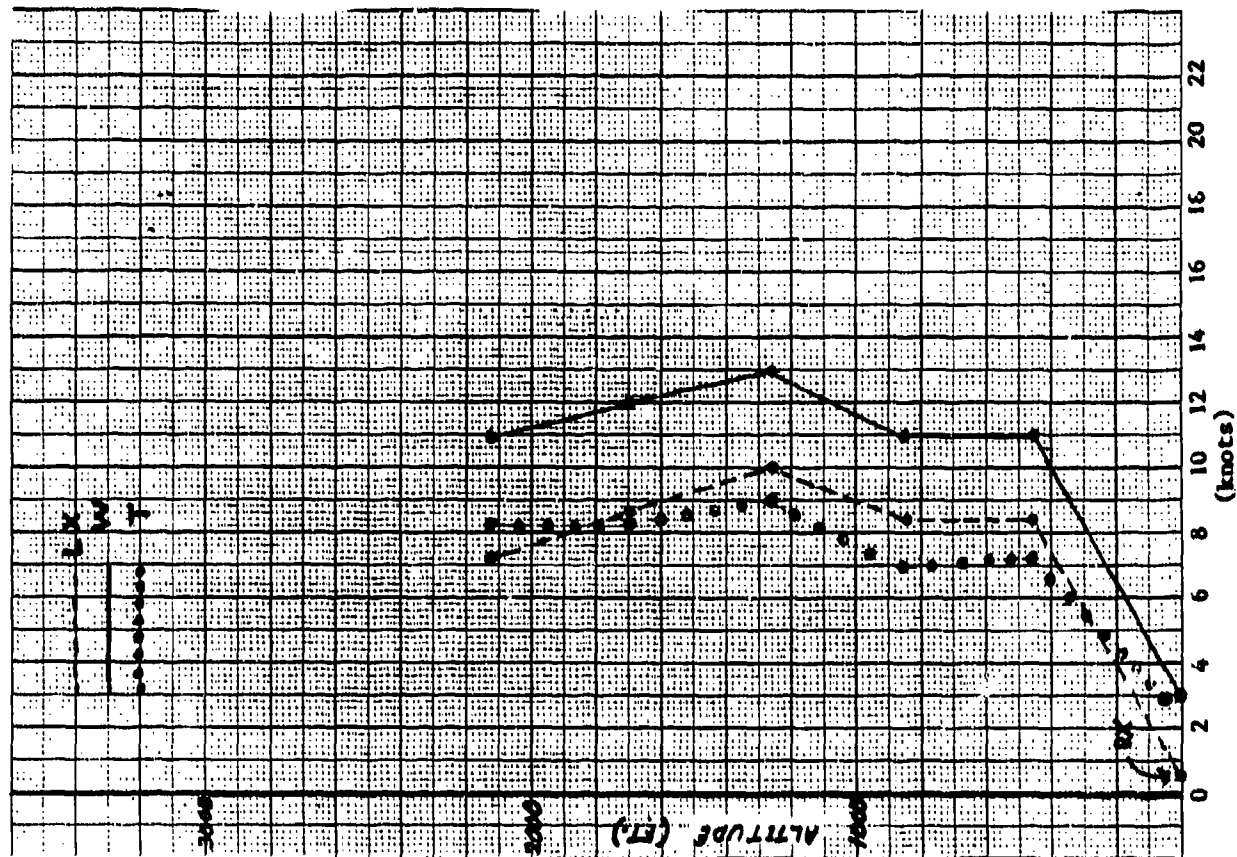
DATE 6/26/80
 ASC. NO. 30
 LAUNCH TIME 5:30 AM

FIGURE E5-2



DATE 6/26/90
 ASC. NO. 31
 LAUNCH TIME 6:00 AM

FIGURE E5-3



DATE 1/26/90
 ASC. NO. 32
 LAUNCH TIME 6:30 AM

FIGURE E5-4

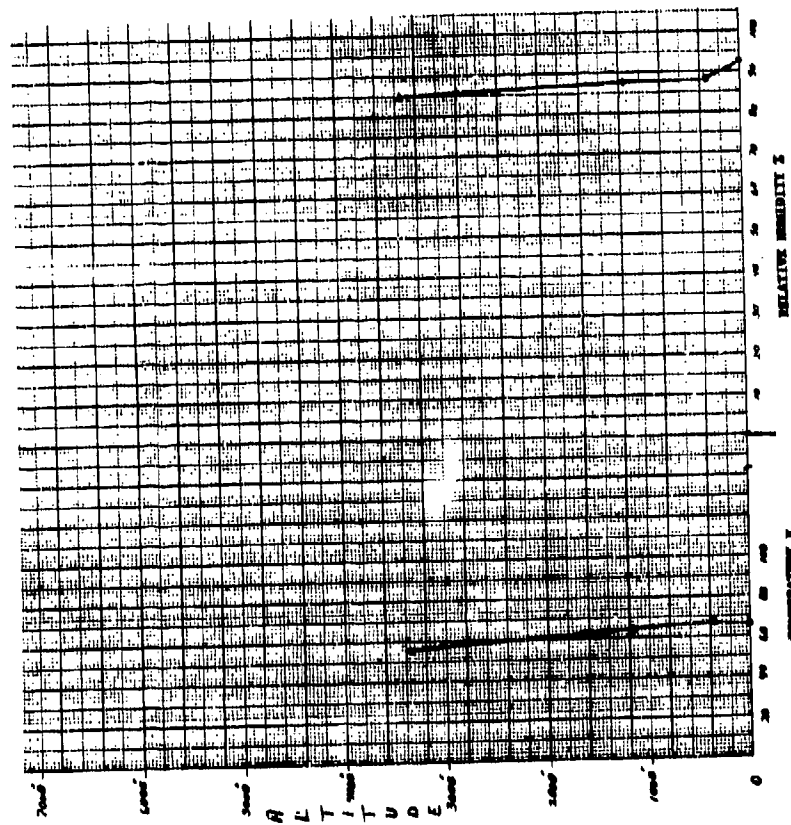
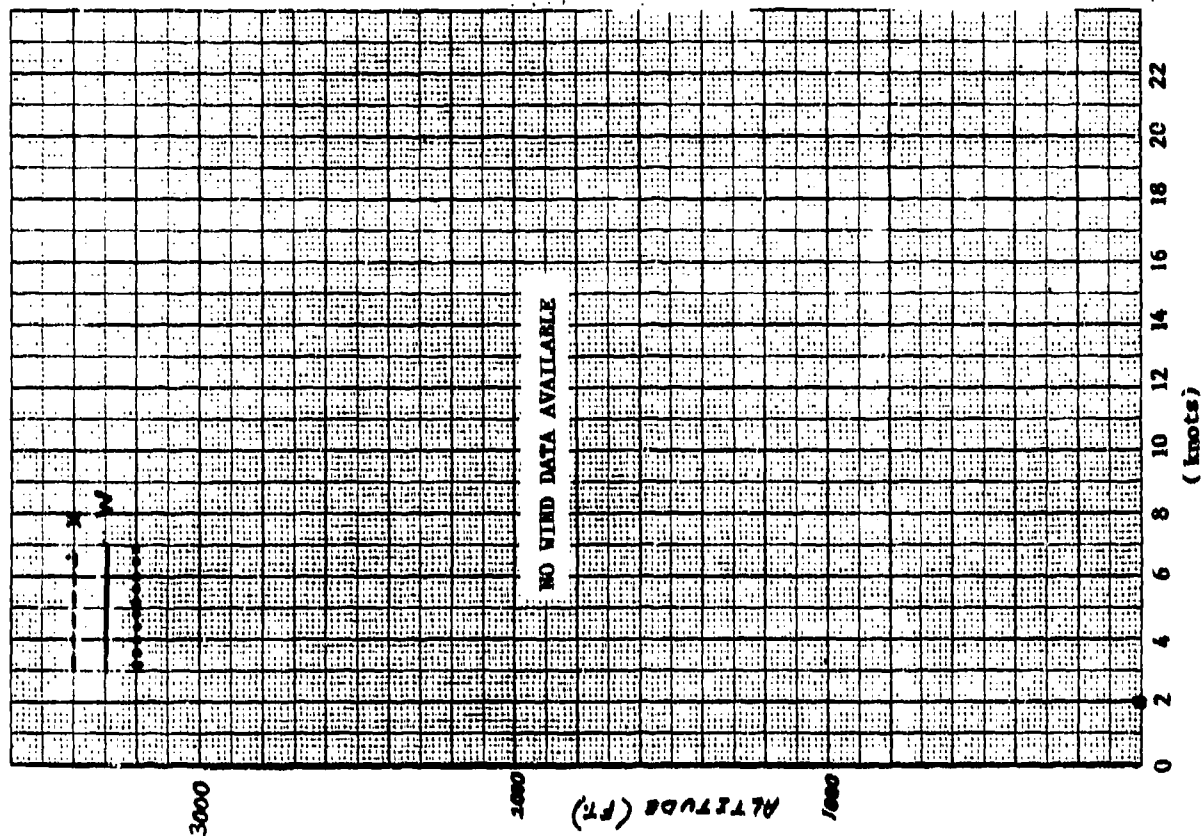
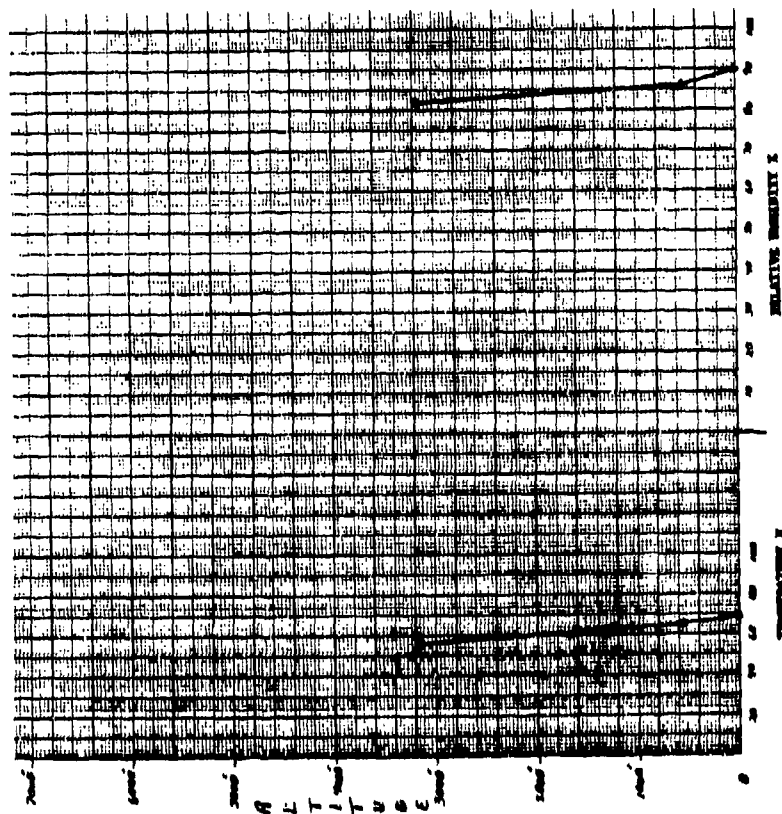


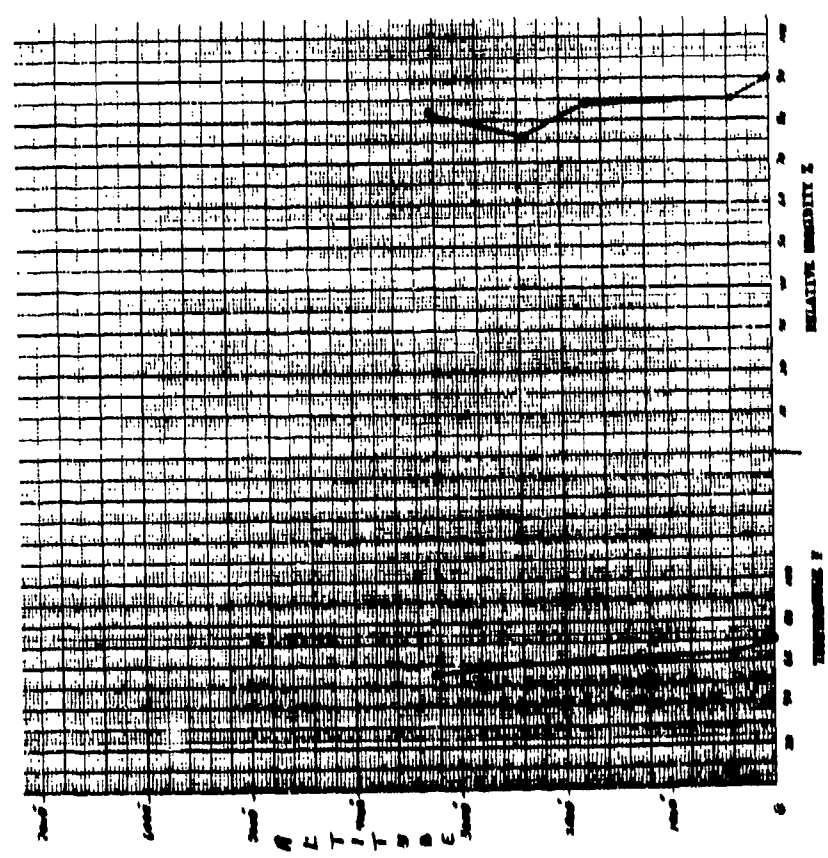
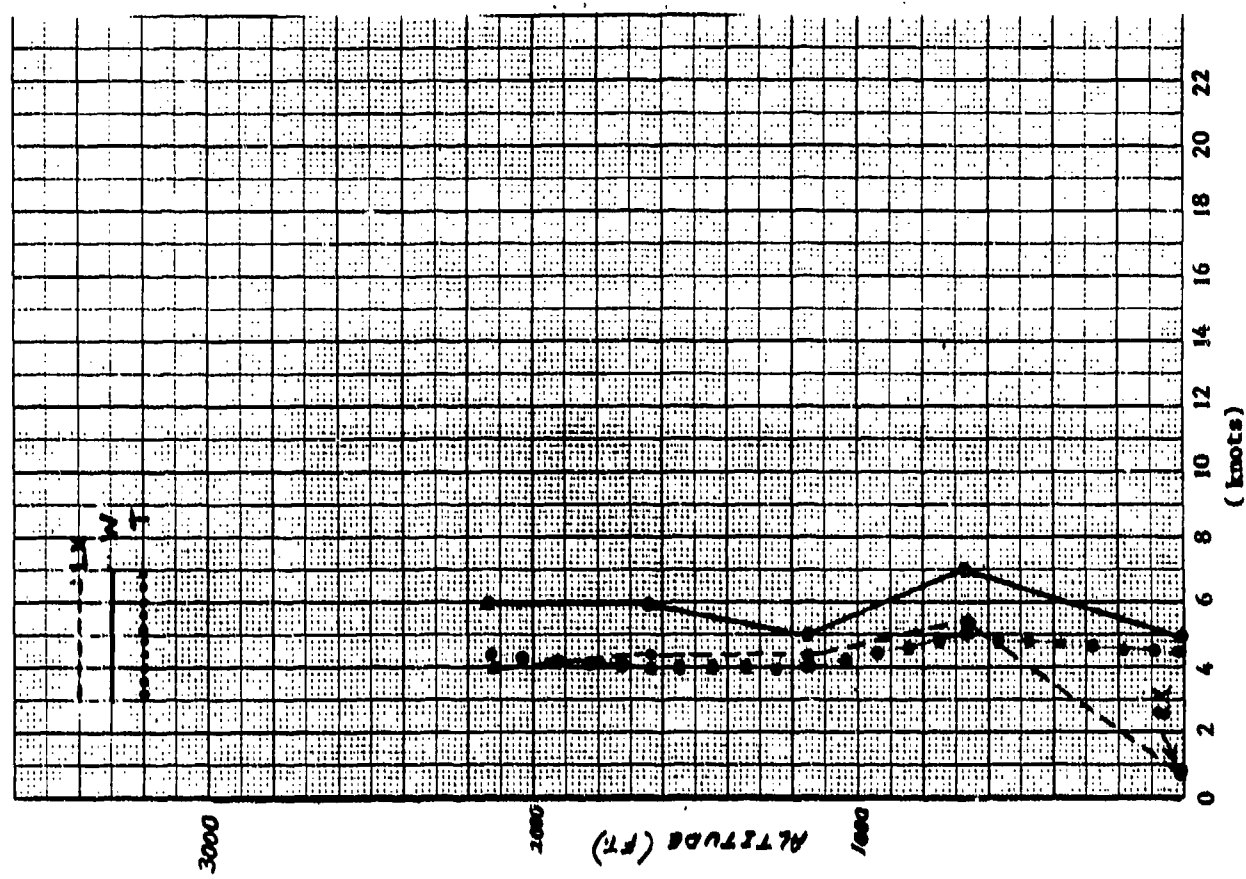
FIGURE E5-5

DATE 6/24/80
 ASC. NO. 33
 LAUNCH TIME 7:00 AM



DATE 6/26/80
 ASC. NO. 34
 LAUNCH TIME 8:00 AM

FIGURE E5-6



DATE 6/26/80
 ASC. NO. 35
 LAUNCH TIME 9:00 AM

FIGURE E5-7

